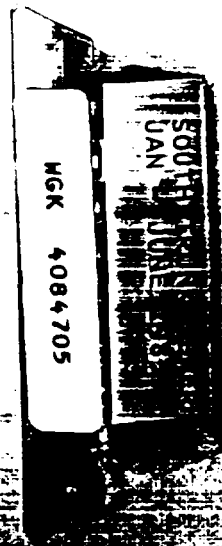


148016

JAN-JUNE 1985

WGK 4084706



MONSANTO

From: Gordon A. Grundmann - CS6G Corporate Engineering (4-6112)

Date: June 28, 1985 cc: D.R. Bowers - CS6G
L.V. Bumbicka 1740**
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J.J. Beckerle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici* B.W. Steketee 1740
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740* *Present at meeting
K.W. Petterson 1740* **Part time
O.N. Shipley 1740*

Following are minutes of the meeting held at the CED construction trailers on 06/27/85 at 9:30 a.m.

1. Construction Progress

- a. The VCP for laterals L-34 and L-35 has been installed. The 12" lateral L-35 was retested and 3 of the 6 joints leaked. One leak is in the VCP itself which did not leak on the first test. A double belled piece of pipe will be installed to correct the problem. This line drains rainwater.

The 8" VCP lateral L-34 will be tested today, 06/28/85.

- b. The encasement base for lateral L-36 has been poured. The 6" VCP going into manhole 1-CC has been laid and the furan joint material is being installed.
- c. The 42" VCP base slab has been poured through the culvert pipe at ACL to manhole 1-EE. Installation of the pipe in the trench here will begin today, 06/28/85.

It is significant to note that no 42" VCP has been laid since April 8. The array of problems ranging from contaminated soil to an extremely wet late spring have seriously hampered progress.

- d. The walls for manhole 1-JJ have been formed. They will be poured today, 06/28/85.
- e. The plant did some substation work and apparently reversed phases as it was discovered that 4 of the dewatering pumps were running backwards. The leads were reversed and the pumps have restored the proper ground water level. Unfortunately, water got in the trench and some cleanup is required.

WGK 4084707

- f. Alberici to pour encasement base as far east of manhole 1-EE as possible. Also plan to pour the encasement base for laterals L-45 and L-46.
- g. With the existing pipe as now exposed, the tie-in of lateral L-45 from manhole 1-EE north will intercept the existing pipe at greater than a 22.5° angle, which is required for cleaning. Lotz will check to see what the angle would be if the intercept is made approximately 4-feet further north. If it is necessary to intercept beyond that point, it is estimated it could cost up to \$20k to do this. Nelson and Lichtenheld to review after Lotz gets information. The sheet piling on the north side probably could not be moved any further north without complications.

2. Contaminated Soil

- a. Excavation of the 42" VCP trench was stopped about 50 feet east of manhole 2-AA due to the discovery of soil which could be contaminated. Tests are in progress and results are expected by 07/03.

Additional excavation was started at manhole 2-BB and has proceeded a small distance east.
- b. Soil testing is in progress at manhole 2-AA.
- c. Application was again made to the state on 06/25/85 for permission to ship some of our stockpiled dirt to local landfills. This may take 4-6 weeks.

3. Jumpers

- a. T-1. Core drilling of the existing manholes 2-B-2 and 2-D-2 has been completed. Excavation across the road will start 06/27/85. The jumper should be installed by Tuesday, 07/02/85.

The existing pipe between manholes 2-B-2 and 2-C is leaking. Lichtenheld and Nelson to review options since this pipe must work to utilize jumper T-1. This situation needs to be addressed immediately since it is holding up work in this area.
- b. T-2. Exploratory work to be done by Alberici as directed by Shipley.
- c. T-3. Exploratory work to be done by Alberici as directed by Shipley. This will furnish needed information to determine the routing, etc.

WGK 4084708

4. Cooling Tower Overflow

A continuing problem on this project has been the overflow water from the cooling tower. This water is finding its way to the trenches and preventing progress. In addition, the water is trying to undermine the railroad tracks near manhole 1-JJ. Chlorine cars sit on this track and this, is a safety concern.

Maintenance was called from the meeting and work on repair or replacement of the sticking float began.

Later in the day the seals (it appears) on a cooling tower pump blew and water is again reaching the ditches. The safety problem with the chlorine cars must be addressed. Nelson and Carrico to discuss with maintenance immediately.

This overflow water is also preventing acceptance of manhole 1-DD since the base remains constantly wet.

5. Internal Manhole Surfaces

Work continues on the internal surfaces of manholes 1-AA, 1-BB and 1-CC. A written punchlist will be prepared on each manhole which will serve as a definitive list to work against for meeting all requirements.

It was agreed that an early inspection will be made of the manholes immediately after the forms are removed to check contouring, fins, etc. Repairs will be easy while the concrete is green.

A later inspection will be made of the encasement joint, etc.

Alberici plans to use a silicia sand slurry to fill the pinholes.

6. Lateral into Manhole 1-JJ

The lateral from existing manhole 1-D-1 to manhole 1-JJ passes under the railroad track on which chlorine cars gain access to ACL. The culvert pipe proposed last week does not appear feasible. Instead VCP, pre-assembled and encased, may be dropped into place during the October shutdown. Details need to be worked out since ACL will only be shut down for a minimum period of time, such as 3-days.

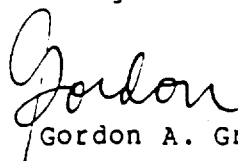
WGK 4084709

J.J. Beckerle, et al
Page 4
June 28, 1985

7. Miscellaneous

Shipley and Petterson generating a plan for the proposed work and timing at department 245. This plan will then be discussed with Nelson and the manufacturing personnel of department 245. This will, of course, allow them to better plan their manufacturing operations during the sewer construction work.

No progress meeting will be held on July 4. Instead, the next meeting will be held at the CED construction trailers at 9:30 a.m. on Thursday, July 11, 1985. All Monsanto project personnel are to meet prior to this meeting at 9:00 a.m.


Gordon A. Grundmann

mb/2178z

WGK 4084710

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE	June 26, 1985	cc. L. Bumbicka
SUBJECT	Status Report on CEA 3808	K. Lichtenheld - CS6G
REFERENCE		R. Nelson
		K. Petterson
		O. Shipley
TO	P. Hoemann	B. Steketee

South dock at BBW being used.

Sewer boxes 1AA, 1BB, and 1CC have still not been accepted for brick membrane and coating.

All joints have been made on L-34 and L-35, not tested yet.

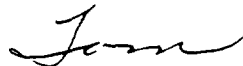
Still experiencing trouble on 1-DD water test.

Contaminated soil and drums cleaned up south of BBZ, work begun again in this area.

Base poured for 1-JJ.

Work started on jumper #1 on G Street.

Soldier beams driven just about to 2-CC.



T. Carrico
Operation Foreman

skg

WCK 4084711

PROJECT VARIANCE DATE: 06/24/85

AR NO.: 3808

CORPORATE ENGINEERING DEPARTMENT

CEA NO: 3808

VARIANCE NO: 3

TITLE: Main South Trunk Sewer

PROJECT SCOPE/PREMISES

LOCATION: W.G. Krummrich

X EXECUTION

To: D.R. Bowers CS6G
J.O. Bright CS6G
E.R. Hartman CS6G
R.M. Kountz F2ED
F.A. Mayse CS6G

J.W. Molloy 1740
R.L. Nelson 1740
M.E. Nolan F1EA
C.H. Thurman B2SE
R.L. Wiese CS6G

PROJECT SUMMARY

This project will install a new 42" diameter trunk sewer to carry all of the plant sewer load now carried by the two Sauget Village sewers at the south end of the Krummrich plant.

Construction is to be executed while maintaining plant operations and minimizing downtime on production units while maintaining dewatering wells pump effluent below maximum quantities established by waste treatment facilities.

DESCRIPTION

This variance updates the current forecasted mechanical completion date for cost effective execution and the forecasted project costs.

JUSTIFICATION

Initial field work was delayed and adversely affected by a number of factors:

- o As addressed in Variance #2, extra time was taken to revise design and rebid construction work to obtain a lower value for construction costs and a GMP contract. The initial start of the project in the field was delayed by unresolved labor contracts in Metro East.
- o A different joint material for the Vitrified Clay Pipe (VCP) had to be evaluated, selected, and field tested after the original specified asbestos material was taken off the market.

APPROVAL: G.A. Grundmann 6/26/85
G.A. Grundmann Date
Project Manager

F.A. Mayse 6/26/85
F.A. Mayse Date
Mgr. SPEO, MIC Engrg.

APPROVAL: D.R. Bowers 6/26/85
D.R. Bowers Date
Mgr. Engrg., MIC Engrg.

J.O. Bright 6/28/85
J.O. Bright Date
Director, MIC Engrg.

WGK 4084712

JUSTIFICATION (continued)

- o Schedules were revised to insure that the plant would be able to maintain normal operations during the construction period to the maximum extent possible.
- o A large corrugated tunnel under the railroad tracks supplying CL₂ to ACL was deemed necessary.
- o Benzene underground seepage, benzene truck unloading and encountering buried drums have shut the field work down on several occasions.
- o Actual field preparation of joints, joint installation, curing and pressure testing requiring more time than originally anticipated based on actual demonstrated field work.

FINANCIAL SUMMARY \$K

	<u>AR</u>	<u>EFC</u>	<u>THIS VARIANCE</u>	<u>NEW EFC</u>	<u>(OVER)/UNDER AR</u>
<u>CAPITAL</u>	5,000	5,000	200	5,200	(200)
<u>EXPENSE</u>	700	1,200	0	1,200	(500)

The estimated accuracy of this variance is +10%.

EXPENSE

Although the expense costs have remained unchanged in this variance, it is important to point out that the project still has potential exposure to increased costs for disposal of contaminated soil. There is no way to accurately estimate the amount of contaminated soil that may be excavated from the trench throughout the remainder of the project. If the soil is identified as contaminated by the plant laboratory personnel, it must receive special handling and some may have to be trucked to an approved landfill.

Consequently, comprehensive dirt handling and testing control procedures have been instituted to insure that any costs for handling and/or shipping contaminated dirt out of the plant are absolutely justified and minimized.

EFFECT ON PROJECT SCHEDULE

A comprehensive schedule update has been recently completed with extensive participation by engineering, field supervision, plant, and contractor personnel. Most importantly, this update is based on actual demonstrated field work to date. The primary bases of this update are to keep the plant

WGK 4084713

CEA 3808, Variance #3
06/24/85
Page 3

EFFECT ON PROJECT SCHEDULE (continued)

running as smoothly as possible, minimize the amount of open trench and consequential plant disruption, insure a quality installation, minimize the risks, and operate the dewatering well pumps within limitations set by the regional water treatment plant. This schedule update incorporates the most cost effective methods of construction to meet the project objectives and is now forecasted to be completed between August and December 1986, subject to weather and any other unforeseen complications.

Gordon A. Grundmann
Project Manager

1135C

WGK 4084714

VARIANCE DETAIL SHEET

CEA No. 3008

Page 4 of 4

Title Main South Trunk Sewer

Date 06/24/05

No.	CL*	Description	Amount \$k	ERC \$k	Date Initiated	Date Approved	Comment
1	1	Sever routing revised.	0 C 0 E	5,000 C 700 E	09/13/03	09/25/03	
2	2	Documents budget estimate and revises completion date.	0 C 500 E	5,000 C 1,200 E	08/21/04	09/05/04	
3	2	Updates mechanical comple- tion date for cost effective execution.	200 C 0 E	5,200 C 1,200 E	06/24/05		
			C E	C E			
			C E	C E			
			C E	C E			
			C E	C E			
			C E	C E			
			C E	C E			
			C E	C E			

*CL = Classification of Variances:
1 = Project Scope/Premises
2 = Execution

C = Capital
E = Expense

00102

WGK 4084715

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: June 21, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J.J. Beckerle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740 F.A. Mayse CS6G
W.C. Koester Alberici* B.W. Steketee 1740
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740* *Present at meeting
K.W. Petterson 1740*
O.N. Shipley 1740*

Following are minutes of the meeting held at the CED construction trailers on 06/20/85 at 9:30 a.m.

1. Construction Progress

- a. Fortunately, this week there was only one rain day.
- b. Manhole 1-AA will be completed 06/21 in preparation for Fleischer Seeger to start work on the membrane linings on 06/24.
- c. Installation of the remainder of the VCP will be completed today on the L-34 and L-35 laterals. The second pass of the furan joint material will be added on 06/21.
- d. Manholes 1-AA, 1-BB and 1-CC have been sandblasted on the inside to remove any loose material. Any remaining voids will be filled.
- e. The base slab/encasement joints were ground out and filled with hydraulic cement on manholes 1-BB, 1-CC and 1-DD.
- f. The tunnel picking device in the ACL culvert is complete and ready to install the 42" VCP in the culvert.
- g. Continued to drive soldier pile to approximately 75' west of manhole. All available soldier pile on the site is now installed.

WCK 4084716

J.J. Beckerle, et al
Page 2
June 21, 1985

- h. The water in the trench around the base of manhole 1-DD has prevented final checking of the outside surface for leaks.
- i. Excavation will continue east of manhole 2-AA, plus a small section of trench needs to be excavated on the west side of 2-AA.
- j. After a planned power outage by the plant, the #5 dewatering pump was not restarted and this allowed ground water to get in the trench.
- k. Excavation in progress for the core drilling of the manholes for jumper T-1.
- l. A relocation adjustment is required for manhole 2-FF to minimize the overlap of encasements. Lichtenheld reviewing.

2. Contaminated Soil

O.H. Materials Company completed the cleanup of the contaminated area east of manhole 1-EE and left the site on 06/13. This area was then turned back over to CED construction on 06/14.

3. Soil Storage

Still waiting for permits so that additional dirt can be trucked to the local disposal area.

4. Jumpers

- a. Core drilling of manholes 2-B-2 and 2-D-2 scheduled for 06/21 for jumper T-1. The jumper pipe is targeted for installation the following week. The plant has cleaned out manhole 2-D-2.
- b. Preparations are in progress for the installation of jumper T-2. Some exploratory work needs to be done by Shipley.
- c. The routing for jumper T-3 needs to be reviewed and finalized. Lichtenheld and Shipley

W6K 4084717

J.J. Beckerle, et al
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June 21, 1985

5. Miscellaneous

- a. The tie in pipe between existing manhole 1-D-1 and new manhole 1-JJ goes under the railroad track which supplies materials to ACL. Probably the best way to do this work is to install a culvert pipe under the track. Lotz to make a layout to see how large a culvert pipe is required.

An installation of this type would be accomplished during an ACL shutdown to insure the continued access to the ACL facility by railroad cars.

- b. Alberici furnished an updated schedule for the project for review. Some laterals still needed to be added as well as some care of flow information.

The next progress meeting will be held at the CED construction trailers at 9:30 a.m. on Thursday, June 27, 1985. All Monsanto project personnel are to meet prior to this meeting at 9:00 a.m.


Gordon A. Grundmann

mb/2178Z

WCK 4084718

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: June 14, 1985

cc: D.R. Bowers CS6G

L.V. Bumbicka 1740

Subj: Project Progress Meetings

R.M. Calles CS6G

M.A. Coco Alberici

Re: CEA 3808 - Main South Trunk Sewer

R.J. Geile CS6G

E.R. Hartman CS6G

TO: J.J. Beckerle Alberici

P.R. Hoemann 1740

W. Bodine Alberici

L.C. Kreh F2ED

T.N. Carrico 1740

F.A. Mayse CS6G

W.C. Koester Alberici*

B.W. Steketee 1740**

K.W. Lichtenheld CS6G*

R.L. Wiese CS6G

C.J. Lotz Alberici*

R.L. Nelson 1740*

*Present at meeting

K.W. Petterson 1740*

**Part Time

O.N. Shipley 1740*

Following are minutes of the meeting held at the CED construction trailers on 06/13/85 at 9:30 a.m.

1. Construction Progress

- a. The heavy rains this last week have hampered progress and caused lost time.
- b. Excavation continued on trench to lateral 1-JJ and east of manhole 2-AA.
- c. Manhole walls poured and stripped for manhole 1-EE. Plan to pour base for manhole 1-JJ on 06/14.
- d. The tunnel picking device for the ACL culvert pipe tunnel will be complete next week.
- e. Plan to pour the remainder of the 42" base slab all the way through the culvert to manhole 1-EE on 06/14. Then can install 42" VCP.
- f. Corner of BI slab that interferes with our sewer line to be removed today. Piling driven in this area today also. Also plan to remove pile between 1-CC and 1-DD.
- g. Repairs completed on the cold joint between manhole 1-DD wall and the existing encasement. Water test tomorrow.
- h. Dewatering pump #8 replaced today. The previous pump went to ground. Water partially filled up in the manhole 2-AA trench and prevented progress for about a day.

WGK 4084719

June 14, 1985

- i. CED fab shop has been removed.
- j. T-1 jumper materials on site. Core drilling of existing manholes 2-B-2 and 2-D-2 scheduled for 06/21. The jumper will be installed early the following week.
- k. T-2 jumper materials on site. Shipley and Lichtenheld to finalize jumper procedure.
- l. The gravel backfill will be completed ASAP on the two tracks east of manhole 1-CC to allow more operating room for BBW.

2. Contaminated Soil

- a. O.H. Materials Company is nearing completion on the cleanup of the contaminated area east of manhole 1-EE, and the trench in this area could be turned back to CED by 06/14.
- b. Some contamination leaked into the trench at manhole 1-EE due to a plug break. The construction workers are currently wearing protective gear. Nelson to sample the trench soil again to see if cleanup removed all of the contaminants.
- c. Alberici plans to have their personnel change clothes in one area to control the clothing, etc., that is being used in contaminated areas. Showers are optional. The plant will advise Alberici if they need to dispose of any clothing.

3. Soil Storage

- a. Approximately 35 loads of dirt were hauled to the local dump by Laidlaw on 06/10.
- b. Additional dirt can be hauled away when permits are received. This may still require several additional weeks.
- c. The space to store soil is getting tight. In order to keep the potentially contaminated soil in a localized area, it may be necessary to pile the dirt higher or consolidate similar piles. If required, the area where the CED fab shop was located is available for storage.

WGK 4084720

June 14, 1985

4. BI Building

The materials inside the portion of the BI left standing still need to be removed. CED will be digging the trench in front of this building in the near future. Shipley and Nelson to coordinate any conflicts, including dismantling of the remainder of the building by the plant.

5. Jumpers

- a. Preparations for the installation of the T-1 jumper the week of 06/24 are in progress. After the jumper pipe is installed in manholes 2-B-2 and 2-D-2, the asphaltic membrane system and acid brick will be installed. The procedure is identical to our standard manhole procedure except that the furan membrane is not required.
- b. The plant is responsible to clean out manhole 2-D-2. Nelson advises this will be done by 06/18. This will allow us to get the sewer elevation.
- c. Step by step procedures for installation of manholes 1-JJ and 2-AA are to be written by Lichtenheld and Shipley.

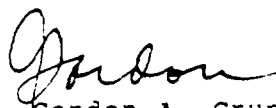
6. Miscellaneous

- a. The cooling tower overflow problem has been corrected per Nelson
- b. Results on the first set of the advance drilled core samples taken on the project showed no contamination.
- c. Exploratory work to locate old foundations around the old CED fab shop will be initiated by the end of June.
- d. Repair of the small diameter VCP will be done entirely with a pencil grinder to minimize the risk of breakage. Drilling out the furan is the likely reason for breakage and will not be done. (L-34 & L-35 laterals).
- e. Soil testing is in progress at manhole 2-AA for any possible contamination.
- f. Shipley and Nelson reviewed the potential conflict of lateral L-73 with a metal shed. The conflict is minimal. It will probably be necessary to remove and replace an apron to install the lateral.
- g. A meeting was held with the acid brick people to review and confirm procedures. Lichtenheld issued minutes.

The next progress meeting will be held at the CED construction trailers at 9:30 a.m. on Thursday, June 20, 1985. All Monsanto project personnel are to meet prior to this meeting at 8:30 a.m.

WGK 4084721

mh/21782



Gordon A. Grundmann

MONSANTO

From: Kenneth W. Lichtenheld CS6G Corporate Engineering (6627)

Date: June 10, 1985

cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
R.M. Calles CS6G
M.A. Coco Alberici
L.C. Kreh F2ED
F.A. Mayse CS6G
B.W. Steketee 1740
R.L. Wiese CS6G

Subj: Pre-Job Conference, Chemical
Resistant Brickwork

Re: CEA 3808 - Main South Trunk Sewer

TO: W. Bodine Alberici
T. Carrico 1740
G. Grundmann CS6G
J. Imrie Imrie Sales
R. Knoll Fleischer Seeger
W. Koester Alberici
C. Lotz Alberici
R. Nelson 1740
K. Petterson 1740
O. Shipley 1740

A pre-job conference was held at the offices of J. Imrie Sales, St. Louis, Missouri, on June 7, 1985, to discuss membranes and acid brick for the manholes on the referenced project. Most of the details discussed in the meeting are a part of the project specifications and the memo from the meeting of January 23, 1985.

Present at this meeting:

Eugene Adams	Bricklayer	Ken Lichtenheld	Monsanto
J.J. Beckerle	Alberici	R. Knoll	Fleischer-Seeger
T.N. Carrico	Monsanto	J. O'Lacy	Bricklayer
John Foy	Fleischer-Seeger	Larry Marlinghouse	Bricklayer
W. Franke	Pennwalt	K.W. Peterson	Monsanto
J. Imrie	J. Imrie Sales	R. Schlereth	Fleischer-Seeger

1. Approved shop drawing of manholes (F/S 3808-1) was shown for general arrangement and details. Note was made that wall brick may be placed on floor brick which is different than contract drawings show.
2. Materials of construction for brickwork were introduced and discussed.
3. Furan Resin Membrane Mortar is to be mixed two-parts powder to one-part solution (by weight) and may be adjusted for spreadability but is not to be mixed less than 1-1/2:1
4. Loads are to be distributed over the floor to prevent cracking and flowing of membranes.

WGK 4084722

W. Bodine, et al
Page 2
June 10, 1985

5. Pennwalt considered an asphaltic membrane thinner than 1/4" to prevent cold flow but rejected this thought and backed the 1/4" thickness. This material must be protected against foot traffic.
6. Project specifications define "double buttering" of brick to be used for this work and are to be strictly followed.



Kenneth W. Lichtenheld

mb/1254C

WGK 4084723

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE	June 10, 1985	cc: L. Bumbicka
SUBJECT	Status Report on CEA 3808	K. Lichtenheld - CS6G
REFERENCE		R. Nelson
		K. Petterson
		O. Shipley
		B. Steketee
TO	P. Hoemann	

Compaction completed south of BBW warehouse dock can be used if necessary.

Rain has stopped backfill work all week.

Sewer box 1AA, 1BB, and 1CC finish inside was rejected. JSA has proceeded with grinding for acceptability.

First three bays of BI brought down and removed.

CED fab building brought down and removed.

Parts of L-34 and L-35 encased.

Good test and encasement of 42" between 1CC and 1DD.

1EE built and poured this week.

OH on job site to clean up contaminated soil south of BBZ.

T. Carrico
Operation Foreman

skg

WGK 4084724

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: June 7, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J.J. Beckerle Alberici* P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici* B.W. Stekettee 1740**
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740* *Present at meeting
K.W. Petterson 1740* **Part Time
O.N. Shipley 1740*

Following are minutes of the meeting held at the CED
construction trailers on 06/06/85 at 9:30 a.m.

1. Construction Progress

- a. Continued work on L-34 & L-35 laterals. Alberici explained that the removal of the furan joint material on small VCP is difficult. The pipe wall is so thin that it breaks easily. Lichtenheld, Shipley and Nelson to review repair method with this problem in mind.
- b. Set manhole 1-EE interior forms.
- c. Erected tunnel device for installing 42" VCP in ACL culvert pipe.
- d. Manhole 1-DD leaked during the water fill test at the cold joint between the manhole wall and the existing encasement. It was agreed that the best method to repair this leak is by pressure injection of epoxy around this joint.
- e. Manholes 1-AA, 1-BB and 1-CC cleaned up in terms of knocking down high spots. The sand/cement slurry on the inside walls could potentially spall off. The decision was made to brush sandblast all of these internal walls to insure there is no loose material. Any holes, etc., need to be refilled if they blast out.
- f. Excavation at 2-AA and L-46 is in progress. WGK 4084725
- g. BI slab now planned to be removed since the BI building is down. Will add piling at this area and remove some pile up by manholes 1-BB to 1-CC.

June 7, 1985

- h. T-1 jumper materials to be on site 06/10/85.
- i. Alberici has contracted with Hayden to tear down the CED fab shop.
- j. Work is progressing on the lateral tie-in to manhole 1-CC.

2. Contaminated Soil

- a. It has been confirmed that the soil is contaminated at the end of the excavation to the east of manhole 1-EE. The plant is taking action to remove this soil.
- b. Nelson and Quick to review contaminated soil procedure by 06/13.

3. BI Building

Demolition of the building was completed by 06/01/85.

4. Schedule

The schedule update continues. Discussions specifically held on the care of flow problems at manholes 2-AA and 2-CC. Shipley and Lichtenheld to write step by step procedure for working through these manholes.

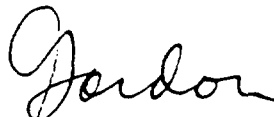
5. Soil Storage

More room is required for soil storage. Shipley to advise Nelson of area needed and Nelson to locate area. Removal of some of the existing soil is delayed by the time to get permits.

6. Miscellaneous

- a. Carrico checked the box on the east side of BBZ and found it was not hot. Spark proof tools will not be purchased.
- b. Cooling tower is overflowing and some water is leaking into our trench. Nelson to contact Mertens to get the overflow problem corrected.

The next progress meeting will be held at the CED construction trailers at 9:30 a.m. on Thursday, June 13, 1985. All Monsanto project personnel are to meet prior to this meeting at 8:30 a.m.


Gordon A. Grundmann

mb/2178Z

WGK 4084726

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: May 31, 1985	cc: D.R. Bowers	CS6G
	L.V. Bumbicka	1740
Subj: <u>Project Progress Meetings</u>	R.M. Calles	CS6G
	M.A. Coco	Alberici
Re: CEA 3808 - Main South Trunk Sewer	R.J. Geile	CS6G
	E.R. Hartman	CS6G
TO: J.J. Beckerle	P.R. Hoemann	1740
W. Bodine	L.C. Kreh	F2ED
T.N. Carrico	F.A. Mayse	CS6G
W.C. Koester	B.W. Steketee	1740
K.W. Lichtenheld	R.L. Wiese	CS6G
C.J. Lotz		
R.L. Nelson		
K.W. Petterson		
O.N. Shipley		

1. Construction Progress

- a. The repaired 42" VCP joint between manholes 1-CC and 1-DD passed the hydro test and has been encased. This completes all the 42" VCP from the inlet box to approximately 30' past manhole 1-DD.
- b. Backfill is complete over the 42" pipe to manhole 1-CC and for half the distance between 1-CC and 1-DD.
- c. Portions of laterals L-34 and L-35 have been encased. The concrete base has been completed to manhole 1-BB. The laterals will be completely installed into the manhole and the entire line will be tested at that time. Repairs to the joints that failed are in progress.
- d. Manhole 1-EE base poured.
- e. Piling driven to lateral MH 2-EE and from MH 2-AA to 2-CC except for the BI building interference.
- f. Started excavation to MH 1-JJ.
- g. Patched culvert pipe to prevent erosion of gravel.

a. Results of the tests are due to be received approximately 06/05/85.

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J.J. Beckerle, et al
Page 2
May 31, 1985

- b. Limits for digging west of MH 2-AA have been given to Alberici (approx. 30').
- c. Nelson and Quick to review and comment on contaminated soil procedure.

3. BI Building

Wrecking of the building is in progress and could be done by 06/04/85.

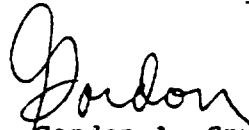
4. Schedule

A comprehensive schedule update continues. The most difficult area to plan is manhole 3-BB to manhole 3-EE.

5. Miscellaneous

- a. Lichtenheld to check lateral L-46 to see how to maintain flow.
- b. The care of flow for the laterals to manhole 1-CC need to be resolved. A 10-day outage of service may be the best way to do the work. Shipley and Nelson to confer with department personnel.
- c. Carrico to check the box on the east side of BBZ warehouse to determine if it is hot, thereby requiring spark proof tools.
- d. Lotz has assembled a list of safety rules to follow for sewer entry. Nelson to review.
- e. Cast iron required in portion of transducer line. Pipe to be installed in manhole prior to brickwork being done.
- f. Epoxy painting of the VCP is not acceptable.
- g. Alberici has purchased a moisture meter.

The next progress meeting will be held at the CED construction trailers at 9:30 a.m. on Thursday, June 6, 1985. All Monsanto project personnel are to meet prior to this meeting at 8:30 a.m.


Gordon A. Grundmann

mb/2178Z

WGK 4084728

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE : June 4, 1985
SUBJECT : Status Report on CEA 3808
REFERENCE :
TO : P. Hoemann

cc. L. Bumbicka
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee

Compaction and fill in final stage of completion south of BBW.

Lot of time spent on job site clean up for inspection.



Eighteen core samples of soil taken by Mathes along the remaining sewer route due to contaminants found south of BBZ.

The samples taken south of BBZ are still being evaluated at Dayton Lab.

Due to work stoppage south of BBZ, soldier beam driving has moved east and north to 2BB and 2EE (L64).

L-64 has reverted to original plan Rev. 1.

Flange between lCC and LDD was sandblasted and repaired again.


T. Carrico
Operation Foreman


skg

WCK 4084729

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: May 28, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740*
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J.J. Beckerle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici* B.W. Steketee 1740
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740* *Present at meeting
K.W. Petterson 1740*
O.N. Shipley 1740*

Following are minutes of the meeting held at the CED
construction trailers on 05/16/85 and 05/23/85 at 10:00 a.m.

1. Construction Progress

- a. Site cleaned up for May 23 inspection.
- b. Exterior coal tar epoxy coating complete on manholes
1-AA, 1-BB and 1-CC.
- c. Backfilling in progress around manholes 1-AA, 1-BB, 1-CC,
and in the trenches just beyond 1-CC. Fabric and rock
ready to be placed for final portion of backfill.
- d. Work continuing on installing the 8" and 12" VCP laterals
L-34 and L-35. Two leaks found on last test. When these
laterals are completed into manhole 1-BB, installation of
the internal membranes and brickwork can begin.
- e. Adding epoxy to manhole 1-DD preparatory to water test
scheduled for the week of 05/27.
- f. Retest of the 42" VCP joint between 1-CC and 1-DD failed
the hydro test. Extra heating to insure the joint is dry
plus sandblasting will be performed on the next repair.
- g. Soldier beams have been driven past 1-EE to 2-AA to
2-BB. Also piles are driven from 2-AA to 2-EE.
Obstructions found at 2-EE.

WGK 4084730

- h. Work stopped between manholes 1-EE and 2-AA at location where contaminated soil has been found. Testing is in progress.
- i. Alberici has been advised that digging can begin at manhole 2-AA.
- j. Alberici ordering materials required for T-1 jumper. Shipley to give one-week notice for timing to begin this work as it will affect storeroom BBZ. Carrico to work with safety to insure that sewer entries are made per plant safety standards.

2. Test Procedure

Lichtenheld to issue Testing Procedure for VCP and Manholes.

3. Contaminated Soil Procedure

An addendum to the original soil handling procedure published last September will be issued by Lichtenheld. This procedure comprehensively covers the handling of contaminated soil.

4. Acid Brickwork

Manholes 1-CC and 1-DD will soon be ready for the installation of membranes and acid brickwork. Lichtenheld and Nelson to clarify and/or issue additional procedures to the specifications as required.

Concern was expressed over the conditions of the existing pipe passing through 1-DD. It is feared that the pipe may crack during the chipping away of the concrete encasement. Fluming may be required.

5. Manhole 3-BB to 3-EE

Lichtenheld and Shipley to clarify and write procedure on care of flow, tie-ins, etc., for this last portion of the sewer line so advance planning can be accomplished.

6. BI Building

The first three bays of this building will be torn down by June 8 at the latest.

7. Schedule

Schedule reviews and updates have been in progress for several weeks.

WGX 4084731

J.J. Beckerle, et al
Page 3
May 28, 1985

Alberici to assemble a list of the items which have caused delay to the sewer progress such as benzene unloading, the ACL tunnel, etc., and the time lost by each of these operations.

After a review of options, it appears the only feasible way to improve the schedule is to open up additional trench.

Three options were considered and are to be reviewed as to their effect on reducing the schedule as well as their effect on cost.

8. Miscellaneous

- a. Additional room to store the excavated soil is required.
Nelson
- b. Since the sewer was designed, a shed has been erected over lateral L-73. Reference drawing C7. Nelson and Lichtenheld to review and propose a solution.
- c. Manhole 2-EE moved back to original location to avoid interference with 42" line encasement.
- d. Manhole 3-EE. Nelson and Lichtenheld to review location which could cause interference with the 42" line due to the sharp angle.
- e. Alberici advised that if they find items such as suspicious drums, etc., in the trench, they are to stop all work and notify CED who in turn will notify plant personnel.
- f. Core drilling ahead on the project has been done to attempt to anticipate potential pockets of contaminated soil.

The next progress meeting will be held at the CED construction trailers at 9:30 a.m. on Thursday, May 30, 1985. All Monsanto project personnel are to meet prior to this meeting at 8:30 a.m.



Gordon A. Grundmann

mb/21782

WGK 4084732

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (6112)

Date: May 28, 1985

cc: D.R. Bowers CS6G

L.V. Bumbicka 1740

Subj: Project Coordination Meeting

R.J. Geile CS6G

L.C. Kreh F2ED

Re: CEA 3808 - Main South Trunk Sewer

B.W. Steketee 1740**

TO: T.N. Carrico 1740*

K.W. Lichtenheld CS6G*

*Present at meeting

F.A. Mayse CS6G*

R.L. Nelson 1740*

**Present at portion of mtg.

K.W. Petterson 1740*

O.N. Shipley 1740*

Following are minutes of the meeting held at the CED construction trailers on 05/16/85 and 05/23/85 at 10:00 a.m.

1. Contaminated Soil

Awaiting results from Dayton lab on quantification of soil contaminants found in trench between manholes 1-CC and 1-DD.

This contamination was found on May 16 and has caused work stoppage on the 42" VCP work since that time in that area. The 42" VCP is the critical path on the project, and an expeditious resolution of this problem is required.

Alberici has been advised that they can resume digging at manhole 2-AA.

Core drilling ahead on the project was started on 05/22 and is complete. Results are expected by 05/31 on contamination results.

The subject of contaminated soil was reviewed with Alberici who will again review this area with the construction workers.

2. Testing

CED and/or plant personnel need to continue to perform timely inspections of any contractor tests to insure that we do not delay the job in any way.

Alberici has been asked to give us as much advance notice as possible prior to testing. Ken Petterson is advised of a forthcoming test and he will notify any other CED personnel as well as plant personnel (Nelson and Carrico).

3. RIP Track

WGK 4084733

The PCN written by Nelson to cover increased operational costs of the RIP track car wash facilities during construction will not be approved. There are no funds for this work in the project.

T.N. Carrico, et al
Page 2
May 28, 1985

4. Soil Sampling Costs

Nelson advised that soil sampling costs are flowing to this project for work done for the project. These costs may be more than anticipated due to the increased sampling.

5. Care of Flow

Currently a sump pump is operating to divert flow on existing 18" sewer east of ACL. A red light goes on if the level hits the alarm point. A spare pump is available. The fire people are monitoring the pump a couple of times a shift. If there is a failure on the off-shift, the off-shift superintendent is to be notified. If additional help is required, Nelson and/or Carrico are to be notified.

The next coordination meeting will be held on Thursday, May 30, 1985, at 8:30 a.m. at the construction trailers.



Gordon A. Grundmann

mb/1124C

WGX 4084734

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE : May 20, 1985
SUBJECT : Status Report on CEA 3808
REFERENCE :
TO : P. Hoemann

cc ~~J. Bumpicks~~
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee

Compaction and fill continuing south of BBW.

Most of the soldier beams needed for 1-JJ south of 1-EE has been set.

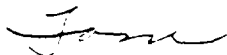
Diversion temporary pump put into service Wednesday for 18 inch at 1-E stream is being pumped through line to 1-D.

Encasement removed and elbow exposed northwest of 1-EE after stream was diverted.

Good section of L35 has been prepared for encasement.

Sewer box 1-AA passed water test and was coated Friday on the outside.

Excavation has been halted south of BBZ building dock. Some chemical waste drums were uncovered in this area and a section of ground with waste in it is being evaluated.



T. Carrico
Operation Foreman

skg

WGK 4084735

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE : May 13, 1985
SUBJECT : Status Report on CEA 3808
REFERENCE :
TO : P. Hoemann

cc: ~~L. Bumbick~~
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee



Coating on Box 1BB was accepted, with LCC already accepted. The pulling of all soldier beams will follow with backfilling and compaction of the area south of BBW Warehouse.

Section between LCC and LDD which had the one bad flange was retested without success. People involved with repairs feel that the weather (rain) had an adverse affect on the repair.

Compaction work underway on west end of section LCC to LDD.

With sheet piling in place at LEE, most of the bulk head was cut away on east end of culvert at ACL chlorine tracks.

Excavation work continuing east on the south side of BBZ Storeroom.


T. Carrico
Operation Foreman


skg

WGK 4084736

IN-1120

MONSANTO

From: Kenneth W. Lichtenheld CS6G Corporate Engineering (4-6627)

Date: May 10, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J.J. Beckerle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740 B.W. Steketee 1740*
G.A. Grundmann CS6G R.L. Wiese CS6G
W.C. Koester Alberici*
C.J. Lotz Alberici*
F.A. Mayse CS6G* *Present at meeting
R.L. Nelson 1740*
K.W. Petterson 1740*
O.N. Shipley 1740*

Following are minutes of the meeting held at the CED
construction trailers on 05/09/85 at 9:00 a.m.

1. Construction Progress

- a. Poured 85 linear feet of encasement and stripped forms.
Encasement now complete from Route 3 box to 30-feet east
of manhole 1D-D except for small length at leaky joint
between manholes 1C-C and 1D-D.
- b. Exterior coal tar epoxy coating completed.
- c. Backfill started and lagging being pulled between 1C-C to
1D-D.
- d. The water test on manhole 1B-B was successful.
- e. Exterior coal tar epoxy coating on manhole 1B-B in
progress.
- f. Excavation between manhole 1D-D to 2A-A continuing.
- g. Retest of joint between manhole 1C-C and 1D-D was
unsuccessful.

W6K 4084737

2. Vitrified Clay Pipe Joints

- a. Alberici asked if they can coat joints with epoxy to
prevent water from stopping cure if flooding of trench
occurs. Lichtenheld and Nelson to check with joint
vendor.

J.J. Beckerle, et al
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May 10, 1985

3. Miscellaneous

- a. Plant (Nelson) notified 03/08/85 to proceed on B1 demolition. Plant was holding due to electrical feeders to old fab shop. Nelson to expedite demolition so as not to impede sewer construction.
- b. Housekeeping inspection on May 21 and 22. Every effort should be made to keep site clean and in order. Alberici has been cleaning up and condensing material storage.

The next progress meeting will be held at the CED construction trailers at 10:00 a.m. on Thursday, May 16, 1985. All Monsanto project personnel are to meet prior to this meeting at 8:15 a.m.



Kenneth W. Lichtenheld

mb/2178z

WGK 4084738

MONSANTO

From: Kenneth W. Lichtenheld CS6G Corporate Engineering (4-6627)

Date: May 10, 1985

cc: D.R. Bowers
L.V. Bumbicka
L.C. Kreh
B.W. Steketee

CS6G
1740
F2ED
1740**

Subj: Project Coordination Meeting

Re: CEA 3808 - Main South Trunk Sewer

TO: T.N. Carrico 1740*
G.A. Grundmann CS6G
F.A. Mayse CS6G*
R.L. Nelson 1740*
K.W. Petterson 1740
O.N. Shipley 1740*

*Present at meeting

**Present at portion of mtg.

Following are minutes of the meeting held at the CED construction trailers on 05/09/85 at 8:15 a.m.

1. Handling & Management of Contaminated Earth

- a. All excavated rock, brick, pipe, and asphalt that was in contaminated soil must be washed and then may go to a local landfill. Washing must be done where water can be directed to a plant sewer.
- b. Signs to designate soil in storage to be made and used. Carrico to handle.
- c. Lichtenheld to write procedure for soil disposal.


2. Joint Repairs of Small VCP

- a. Joint to be ground out to shoulder of bell.

3. Test Procedure for Manholes & VCP

- a. Plant has not commented on procedure written by Petterson. Nelson to get comments to Petterson.

The next progress meeting will be held at the CED construction trailers at 10:00 a.m. on Thursday, May 16, 1985. All Monsanto project personnel are to meet prior to this meeting at 8:15 a.m.



Kenneth W. Lichtenheld

mb/21782

WGK 4084739

From

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Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE : April 29, 1985
SUBJECT : Status Report on CEA 3808
REFERENCE :
TO : P. Hoemann

cc: L. Bumbicka
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Stekete

Began excavation between 1EE and 2AA.

Sheet piling for 1EE and tie-in work near track 8E.

Test of complete joints on line 35 was not successful.

Retest of stub at 1B junction was successful.

Line 34 approximately 90% complete.

Coating started on 1CC.



T. Carrico
Operation Foreman

skg

WGK 4084741

IN-1120

MONSANTO

From: Kenneth W. Lichtenheld CS6G Corporate Engineering (4-6627)

Date: May 3, 1985	cc:	D.R. Bowers	CS6G
		L.V. Bumbicka	1740
Subj: <u>Project Progress Meetings</u>		R.M. Calles	CS6G
		M.A. Coco	Alberici
Re: CEA 3808 - Main South Trunk Sewer		R.J. Geile	CS6G
		E.R. Hartman	CS6G
TO: J.J. Beckerle	Alberici	P.R. Hoemann	1740
W. Bodine	Alberici	L.C. Kreh	F2ED
T.N. Carrico	1740	B.W. Steketee	1740**
G.A. Grundmann	CS6G	R.L. Wiese	CS6G
W.C. Koester	Alberici*		
C.J. Lotz	Alberici*		
F.A. Mayse	CS6G*	*Present at meeting	
R.L. Nelson	1740*		
K.W. Petterson	1740*	**Present at portion	
O.N. Shipley	1740*	of meeting	

Following are minutes of the meeting held at the CED construction trailers on 05/03/85 at 9:00 a.m.

1. Construction Progress

- a. Six feet of water in trenches after weekend. On Tuesday job was shut down because of rain.
- b. Ninety-four feet of 42" VCP encasement from Bldg. BBW - LDD placed.
- c. Brick windows leaked on manhole 1-BB. Will try a waterstop material.
- d. L-35 (12" VCP lateral) was tested with four leaking joints out of nine joints tested.
- e. Twenty-five trucks of contaminated soil were loaded out for shipment to landfill in Ohio.

2. Miscellaneous

- a. Nelson and Shipley pursuing development of sewer construction around P₂S₅.
- b. Exploratory work to locate any foundations around old CED shop will have to be done soon. Shipley to advise Nelson on timing.

WGK 4084742

J.J. Beckerle, et al
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Page 2

- c. Construction of 42" VCP joints in hot weather.
 - 1) Use of air conditioned space
 - 2) Placing materials at night
 - 3) Painting of joints after VCP is in place
- d. Lichtenheld to explain jumper system in writing.
- e. Shipley to investigate relocation of jumper T3. Also, to do investigation on jumpers T1 & T2 next week.
- f. ACL track setup (sheet piling around manhole 1-EE) will be present approximately 3-4 months. Nelson to check with plant for comments.
- g. Discussion of construction procedure at existing manhole 1-D-1. Nelson, Shipley, and Lichtenheld to pursue.
- h. Peterson submitted written detailed testing procedure for VCP and manholes for comments.

The next progress meeting will be held at the CED construction trailers at 10:00 a.m. on Thursday, May 9, 1985. All Monsanto project personnel are to meet prior to this meeting at 9:15 a.m.



Kenneth W. Lichtenheld

mb/0898C

WCK 4084743

MONSANTO

From: Kenneth W. Lichtenheld CS6G Corporate Engineering (4-6627)

Date: April 25, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J.J. Beckerle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* B.W. Steketee 1740
G.A. Grundmann CS6G R.L. Wiese CS6G
W.C. Koester Alberici*
C.J. Lotz Alberici*
F.A. Mayse CS6G* *Present at meeting
R.L. Nelson 1740*
K.W. Petterson 1740* **Present at Safety portion
O.N. Shipley 1740* of meeting
J.C. Sullivan Alberici**
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 04/25/85 at 9:00 a.m.

1. Safety Precautions Required to Enter Existing Manholes

- a. Box @ Rt. 3 Discussion of procedure for removing existing plug using baffle plates. Remove existing lids and direct flows as required to remove plug at south end of box. Provide hip boots and rain suits. Monitoring of fumes by Monsanto.
- b. Box 2A-23 Need diver with wet suit complete with air. Plant needs 4-days notice prior to entry. Special chemical resistant suit required (benzene, organics, acids, and dyes possibly present). Nelson to supply Alberici with diver's name used on previous work.

2. Construction Progress

- a. Trenching continuing from MH 1-EE to 2-AA.
- b. Retest of tie-in joint @ Rt. 3 Box completed and passed without leaks with VCP full of water. Pipe was not pressurized for fear of losing plug in existing box.
- c. Line L-35 ready for testing, L-34 90% complete.
- d. Steel sheet piling east of ACL installed completely.
- e. Sandblasting and patching of MH 1-BB and 1-CC continues.

WGK 4084744

J.J. Beckerle, et al
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April 25, 1985

- f. 42" diameter VCP between MH 1-CC and 1-DD retested with one joint failing test due to leak.
- g. MH 1-CC tested with no leaks.
- h. MH 1-AA and 1-BB ready for water test.
- j. Alberici prepared to load trucks with contaminated excavation dirt for disposal by plant. Twenty-five trucks scheduled for disposal.

3. Dewatering

All 5 dewatering pumps in area of construction are working satisfactorily.

4. Miscellaneous

- a. Donahue has started vacating building B1 in preparation for demolition of building. Building will be demolished by June 8. (At least north end of building which is path of sewer construction).
- b. Plans for sewer construction around P₂S₅ must be developed so that they may be discussed with production personnel. Nelson and Shipley to develop plans.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Friday, May 3, 1985. All Monsanto project personnel are to meet prior to this meeting at 8:15 a.m.



Kenneth W. Lichtenheld

mb/2178Z

WGK 4084745

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: April 22, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J.J. Beckerle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740 F.A. Mayse CS6G
W.C. Koester Alberici* B.W. Steketee 1740
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740 *Present at meeting
K.W. Petterson 1740*
O.N. Shipley 1740*
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 04/18/85 at 9:00 a.m.

1. Construction Progress

- a. The first 42" VCP joint, which connects the first new pipe to the existing stub out from the existing inlet box, has been difficult to make successfully due to the condition of the existing stub out. The existing pipe has been carefully dried and sandblasted preparatory to another attempt to make a good joint. If the joint fails, special measures may have to be taken.
- b. The soldier beam piles have been pulled from manhole 1-AA to 1-CC.
- c. Backfilling is in progress between manholes 1-AA and 1-BB.
- d. Soldier beam piling has been driven from manhole 1-EE to manhole 2-AA. Excavation of the trench has begun.
- e. Three joints were tested on 42" VCP east of manhole 1-DD. All passed.
- f. Sixteen joints were tested between manholes 1-CC and 1-DD. Four had leaks. Repairs have been made and a retest is scheduled for 04/22/85.
- g. Nine joints were made on the 12" pipe on lateral #L-35 (manhole 1-FF to 1-BB). They will be tested the week of 04/22. Pipe was laid in the trench for lateral L-34. The tie-in will be made to the existing pipe (line currently has no flow).

WGK 4084746

J.J. Beckerle, et al

Page 2

April 22, 1985

- h. Started to install monorail in ACL tunnel.
- i. Installation of sheet piping started at railroad tracks east of ACL.
- j. Manhole 1-CC currently being water tested.
- k. The concrete encasement that passes through the ACL culvert pipe has a small hole in it, and is slightly leaking.

2. Dewatering

- a. All 5 dewatering pumps are currently operating.


3. BBZ Warehouse

This warehouse is now being operated with the temporary facilities.

4. Miscellaneous

- a. Dismantling of the BI building needs to be accomplished soon to avoid future interferences. Nelson
- b. A letter was received from John Mathes & Associates, Inc. clarifying my letter of April 9 concerning compaction of backfill. A copy is attached.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, April 25, 1985.


Gordon A. Grundmann

mb/2178Z

Attachment

WGK 4084747



**John Mathes
& Associates, Inc.**
Geotechnical Consultants

210 West Sand Bank Road
P.O. Box 330
Columbia, IL 62236-0330
618/281-7173
314/241-1785

April 18, 1985

Monsanto Company
Corporate Engineering
800 N. Lindberg Boulevard
St. Louis, MO 64166

Attention Mr. Gordon Grundmann

Reference 42" Main South Trench Sewer,
Krummrich Plant,
April 9, 1985 Meeting

Dear Mr. Grundmann:

We would like to make the following changes, additions or clarifications to the attached minutes of the April 9, 1985 meeting concerning compacted backfill at the Krummrich 42" Main South Trench Sewer.

Item 1, Paragraph 2: Compaction levels were revised as follows:

1. Areas under pavement but not in the zone of influence of a building or structure; 92% Standard Proctor 2 feet or more below finished earth grade; 95% Standard Proctor in the upper 2 feet of fill.
2. Areas in zone of influence of a building or structure; 95% Standard Proctor.

Item 2a: Earth to be backfilled in a maximum of 1 foot thick lifts. If compaction cannot be attained because the lift is too thick, lift thickness should be reduced or heavier equipment used.

New Item: Earth fill that is too wet to be compacted to the required degree in pavement areas shall be compacted to the maximum attainable degree. If the fill is dry enough, it shall be compacted to at least the minimum required degree. All fill in areas within the zone of influence of buildings or structures shall be compacted to the minimum specified degree.

New Item: The contractor is responsible for compacting all areas within the excavation in accordance with the aforementioned guidelines. This includes areas around and outside the soldier beams and alongside the concrete encasement.

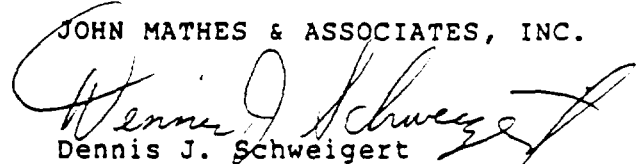
WGK 4084748

April 18, 1985

If you have any questions or wish to revise our proposed changes or additions, please do not hesitate to call.

Sincerely,

JOHN MATHES & ASSOCIATES, INC.



Dennis J. Schweigert
Manager, Construction Services

DJS:es

CC: Ken Lichtenheld

WGK 4084749

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE April 22, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO : P. Hoemann

cc: L. Bumbicka--
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee

Repair of four joints between ICC and LDD was successful, but another joint was questionable. A retest will be done this week.

Another repair has been undertaken on the tie-in at Junction 1B. Retest Wednesday.

Line 34 tie-in point has been exposed and cut for tile change.

Line 35 is (12" from LFF) approximately 80% complete.

Soldier beams pulled and backfill continues between LBB and ICC.



Soldier beams driven east to just past 7AA.

Began shoring up area near track 8E with sheet piling so work can safely proceed around chlorine cars.

Good test achieved on Box ICC.

Sandblasting manholes.

Water table in control with five dewatering pumps running.


T. Carrico
Operation Foreman


skg

WGK 4084750

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE April 15, 1985

SUBJECT Status Report on CEA 3808

REFERENCE

TO : P. Hoemann

~~cc: J. B. Bickel~~
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee

Four joints between LCC and LDD have been repaired and are curing for Wednesday's retest.

Some tile placed for L34 and 35 joints are being held up because of the weather.

Joints are being made east of LDD.

Backfilling is still underway south of BBW.

The No. 4 dewatering pump set Friday morning was shortened by one section. The pump is running OK in automatic mode.

Tam

T. Carrico
Operation Foreman
cc

skg

NGK 4084751

IN-1120

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Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE April 9, 1985 cc. L. Bumbicka
SUBJECT Status Report on CEA 3808 K. Lichtenheld - CS6G
REFERENCE K. Nelson
TO : P. Hoemann K. Petterson
O. Shipley
B. Steketee

Thursday, hydrotest of uncased joints between LCC and LDD was not a success, four joints will have to be repaired.

Backfilling is still underway between LBB and LCC.

Test results on LCC have still not been worked out.

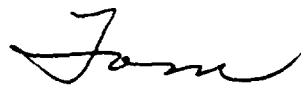
Forms stripped off of LGG last week.

Track 8 was taken out of service March 28. Started driving soldier beams for shoring south of BBZ on April 3.

Good test on joints between LAA and LBB. Section was encased on April 3.

Remaining door seal for BBZ being installed today.

Relocating plant water for repair track so sewer job can proceed is turning into a big job.


T. Carrico
Operation Foreman

skg

WGK 4084752

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)
 Date: April 8, 1985 cc: D.R. Bowers CS6G
 L.V. Bumbicka 1740
 Subj: Project Progress Meetings R.M. Calles CS6G
 M.A. Coco Alberici
 Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
 E.R. Hartman CS6G
 TO: J.J. Beckerle Alberici P.R. Hoemann 1740
 W. Bodine Alberici L.C. Kreh F2ED
 T.N. Carrico 1740* F.A. Mayse CS6G
 W.C. Koester Alberici** B.W. Steketee 1740
 K.W. Lichtenheld CS6G* R.L. Wiese CS6G
 C.J. Lotz Alberici*
 R.L. Nelson 1740* *Present at meeting
 K.W. Petterson 1740* ** Part Time
 O.N. Shipley 1740*
 T.W. Wright CS6G

1. Construction Progress

- a. Testing of the final joint between the outlet box and manhole 1-AA is scheduled for 04/05/85.
- b. Encasement of the 42" VCP between manholes 1-AA and 1-BB is complete.
- c. Backfill is in progress between manholes 1-BB and 1-CC.
- d. The epoxy joints on manhole 1-CC have been completed and water testing is in progress.
- e. The 42" VCP joints between manholes 1-CC and 1-DD are completed and scheduled for testing on 04/04/85.
- f. Manhole 1-GG is complete and forms have been removed. Epoxy completed on outside joint.
- g. Will start to make joints 04/04/85 - four pieces of pipe east of manhole 1-DD.

One pump malfunctioned over the weekend and two others were temporarily out of operation. This situation plus the heavy rains over the weekend caused water to come up in the trench.

WGK 4084753

J.J. Beckerle, et al
Page 2
April 8, 1985

3. BBZ Warehouse

Dock seal being installed. The warehouse will be ready 04/08/85 for operation with the temporary facilities.

4. Manhole 1-EE

Sheet piling will be used at manhole 1-EE to allow ACL to remain operational. Work will be started in a couple of weeks.

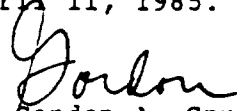
Rerouting of the plant water line will be complete by 04/05/85.

Driving of soldier beam piles has begun to the east of manhole 1-EE. Excavation of additional trench will begin on 04/08/85.

5. Miscellaneous

- a. Overflow on the cooling tower has been corrected and the water problem seems to be solved.
- b. The BI building needs to be dismantled no later than 06/01/85. Dismantling should be done in May.
- c. Dismantling of the CED fab shop is also coming. The equipment in the fab shop must be moved to the new shop being built behind the CED trailers.
- d. The heavy rainstorm over the weekend caused a couple of days to be lost due to the extreme cleanup required.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, April 11, 1985.


Gordon A. Grundmann

mb/2178Z

WCK 4084754

Monsanto

FROM
NAME-LOCATION-PHONE: T. Carrico, Ext. 2095

DATE	April 1, 1985	Mr. Bumbicka
SUBJECT	Status Report on CEA 3808	K. Lichtenheld - CS6G
REFERENCE		R. Nelson
		K. Petterson
		O. Shipley
		B. Steketee
TO	P. Hoemann	



All joints made between LCC and LDD and being cured.

Brick epoxy mortar repairs complete on box LCC expect to test this week.

Backfilling progressing between LBB and LCC.

Poured box LGG Friday.

One door remains to be installed at BBZ.


Tom Carrico
Operation Foreman


skg,

WCK 4084755

Monsanto

FROM
NAME-LOCATION-PHONE: T. Carrico, Ext. 2095

DATE March 25, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO : P. Hoemann

~~L. Bumbicka~~
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee

Additional problem at 12" flume was solved.

Backfilling was completed and track work on 8C all complete except for some road plates.

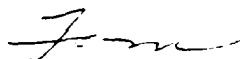
Backfilling started between LBB and ICC.

Joints tested OK between LAA and LBB.

Diversion line for H Street sewers is ready.

Electrical work completed at BBZ.

Epoxy mortar repairs underway on Box ICC.


Tom Carrico
Operation Foreman

skg

WGK 4084756

From: K.W. Lichtenheld CS6G Corporate Engineering (4-6627)

Following are minutes of the meeting held at the CED construction trailers on 03/28/85 at 9:00 a.m.

- a. Water test 1-AA to 1-BB on VCP passed.
- b. Water test Rt. 3 Box to 1-AA failed. Will cut out joint and test next week.
- c. Grout slurry under 42" dia. VCP put in at flume manhole.
- d. Encasement steel installed Rt. 3 Box to 1-AA and manhole 1-AA to 1-BB. Bulkheads to be installed manhole 1-AA to 1-BB today and concrete placed next week.
- e. Manhole 1-BB to 1-CC backfill in progress.
- f. Manhole 1-CC brick mortar installation 90% complete.
- g. Set 42" dia. VCP manhole 1-CC to 1-DD. First and second pass on joints complete today and third pass will be complete tomorrow.
- h. 42" dia. VCP set in trench between manhole 1-DD to 1-EE.
- i. Manhole 1-GG base forms set and concrete will be placed tomorrow.
- j. Rig for setting 6" dia. to 18" dia. VCP has been designed and is being fabricated.
- k. Kelly R.R. contractor completed work on track #8C.

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2. BBZ Warehouse

The new dock seal is to be installed next week. The rock on the railroad tracks and electrical work has been completed.

3. Dewatering Pumps

The #4 pump is to be installed with only a 45-foot riser. Pumps #1, 2, 3, & 5 are in operation.

4. Manhole 1-EE Area

- a. Other options to sheet piling around 1-EE are more expensive than \$70k. Field (Shipley) to write change order next week.
- b. Elevation checks on new lateral line manhole 1-JJ to manhole 1-EE are complete. Lichtenheld to check possible interference with existing 24" and 30" Village sewers.
- c. The 8" dia. well water line rerouting on the east side of "H" Street will be completed next week.

5. Miscellaneous

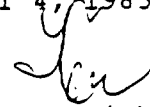
- a. Float system at ACL cooling tower appears to be functional. Plant will overhaul on next shutdown.
- b. Details of the cost to keep the wash tracks operating during the construction period are being assembled by Nelson who will write a PCN. Nelson not present to report progress.
- c. R. Nelson to start on BI demolition. Construction will begin in that area in two-months.

6. Earth Removal from Plant

- a. Carrico working with plant on removing contaminated soil at stockpile.
- b. Alberici to start removing non-contaminated earth from plant. Carrico to supply Alberici permit numbers.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, April 4, 1985.

WGK 4084758


K. W. Lichtenheld
for G.A. Grundmann

mb/21782

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: March 21, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J. Beckerle Alberici* P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici** B.W. Steketee 1740
K.W. Lichtenheld CS6G R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740 *Present at meeting
K.W. Petterson 1740* **Part time
O.N. Shipley 1740*
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 03/21/85 at 9:00 a.m.

1. Construction Progress

- a. Backfilling of the trench just east of manhole 1-CC is complete. The railroad track east of BBW will be reinstalled on 03/22/85. Rail cars will begin to reuse the track on 03/25/85.
- b. The final 42" VCP between the outlet box and manhole 1-AA has been installed. The joint is curing and testing is scheduled for 03/22/85.
- c. The two joints repaired between manholes 1-AA and 1-BB will be tested 03/25/85.
- d. Manhole 1-CC has been cleaned up preparatory to the epoxy installation on 03/22. Water testing is targeted for approximately 04/01 after the epoxy cures.
- e. Two new 42" VCP joints made on the pipe east of manhole 1-CC.
- f. Resampling results for the dirt pile with rubble are due today. If the results are satisfactory, the dirt can be hauled away.
- g. The cracked lateral line at manhole 1-GG was repaired with a sleeve. Unfortunately, it was discovered that the crack extends further north. Repair of this crack is now needed. It will ultimately be necessary to remove this existing pipe back to the next joint so that new pipe can be installed when the manhole 1-GG is complete.

WGK 4084759

March 21, 1985

The CYA from this line break has been cleaned out of the trench.

h. Clean up of the site continues.

2. BBZ Warehouse

The only items remaining to be completed are the new dock seal, rock on the railroad tracks and some electrical work. Should be complete next week.

3. Dewatering Pumps

- a. The #5 dewatering pump is operational.
- b. The #4 pump has been pulled again due to malfunctioning.

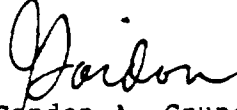
4. Manhole 1-EE Area

- a. The cost of sheet piling around manhole 1-EE is expensive (~\$65k). Other options are being quickly reviewed.
- b. Elevation checks have shown that the concrete encasement on the new lateral line from manhole 1-JJ to manhole 1-EE would interfere with the encasement on the existing 30" and 24" sewer lines. The encasements will probably be made to overlap.
- c. The 8" water line will be temporarily routed underground on the east side of "H" Street. The pipe will be flanged where it crosses the trench in the event it needs to be briefly removed during construction.

5. Miscellaneous

- a. A little wall was built on the northeast corner of the tower to stop the flow to our trench. Apparently the water now overflows at the southwest corner and some still gets in the trench. Carrico to see if the float system can be repaired to prevent the overflow leakage.
- b. The fire main leak will be repaired by the plant.
- c. Details of the costs to keep the wash tracks operating during the construction period are being assembled by Nelson who will write a PCN.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, March 28, 1985.


Gordon A. Grundmann

WGG 4084760

mb 2178Z

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE : March 19, 1985
SUBJECT : Status Report on CEA 3808
REFERENCE :
TO : P. Hoemann

cc. L. Bumbick
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee

Excavation at 1GG resulted in sewer problems that took until Friday to correct with a 12" flume.



Retest of one joint between 1BB and 1CC was OK. Shoring and piling in the removal stage between 1BB and the middle of I Street.

Mathes Engineering has advised that the dirt scheduled for backfill is too wet to give the compaction specified for the job at this time.

Diversion line for H Street sewer around 70% complete.

Changes at BBZ warehouse complete except for another dock seal, some rock, and the electrical work.

No. 5 dewatering pump was installed, ready to fuse and run.


Tom Carrico
Operation Foreman


skg

WGK 4084761

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: March 14, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J.J. Beckerle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici* B.W. Steketee 1740**
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740* *Present at meeting
K.W. Petterson 1740* **Part time
O.N. Shipley 1740
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 03/14/85 at 9:00 a.m.

1. Construction Progress

- a. Some of the smaller VCP we have been waiting for arrived last Friday.
- b. Concrete encasement of the 42" VCP east of manhole 1-CC is complete. Backfilling will start 03/14. After backfilling, the railroad track will be installed east of BBW and is targeted for completion early the week of 03/18/85. A bulkhead will be required on the east side of the dirt to hold the backfill.
- c. Mathes visited the site last Friday and checked the dirt piles for suitability for compaction, which appears to be okay.
- d. The joint repaired between manholes 1-BB and 1-CC tested okay. Encasement has been poured and backfilling will start between these two manholes next week.
- e. Additional work can now be started on manhole 1-CC since the encasement is poured on both sides. This will include the addition of epoxy and then hydro testing.
- f. The two joints have been repaired between manholes 1-AA and 1-BB and are curing.

WGK 4084762

- g. Setting of the final 42" VCP section between the outlet box and manhole 1-AA will be done on 03/15 or 03/18.
- h. The pile of dirt filled with concrete, asphalt, etc., will be hauled to the dump next week - Shipley. Carrico to have any final tests made, if necessary.
- i. While excavating for lateral manhole 1-GG, it was necessary to dig around an existing 15" line encased in concrete. The existing 15" line apparently was cracked and not encased on one portion at the bottom. When digging occurred near this area, the line began to leak. This occurred on 03/11/85. Work has been proceeding on repairing this line. A PVC sleeve is targeted to be in place by Friday P.M. on 03/15. Construction will work a second shift on 03/14 to expedite the repair.

An 8" pipe was found to be piggyback on the 15" pipe. No one has any records as to what this pipe is for. Nelson to research.

2. BBZ Warehouse

Work began on the temporary modifications. The dock seals and bumpers were installed, and the inside partitions were started.

3. Dewatering Pumps

- a. The #4 pump was reinstalled.
- b. The #5 pump should be operational on 03/15 after some final piping and wiring are completed.
- c. Carrico advised that there appears to be no new pumping restrictions to the treatment plant in the near future.

4. Manhole 1-EE

- a. Excavations have uncovered the 8" water line to the west of manhole 1-EE.
- b. The firewater line will be located to verify its location.
- c. Sheet piling will be required to the east of the ACL tracks during the installation of manhole 1-EE and the lateral to the north. This will insure that the ACL tracks remain in operation.

WKG 4084763

J.J. Beckerle, et al

Page 3

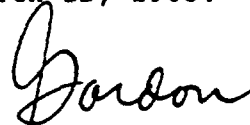
March 14, 1985

- d. Lateral manhole 1-JJ will be moved slightly east to center between two railroad tracks. This will allow regular sheeting to be used here. The elevation of manhole 1-JJ needs to be confirmed to see if the lateral feed pipe interferes with the existing sewer.

5. Miscellaneous

- a. Nelson guarantees he will get the cooling tower leak repaired.
- b. The existing fire main has developed another leak which must be repaired - Shipley.
- c. Nelson advises that removal of the wash tracks south of BBC has previously been cleared. Removal of tracks will occur approximately 04/15.
- d. The break in the existing pipe near manhole 1-GG has lost two-days on the schedule.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, March 21, 1985.

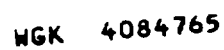


Gordon A. Grundmann

mb/2178Z

Attachments (2) carbones only

WGK 4084764



Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE March 12, 1985
SUBJECT Status Report on CEA 3808

~~cc-LT Bumbicka~~
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee

REFERENCE

TO : P. Hoemann

The joint east of LCC was retested and encased.

Encasement base at LDD was poured.

Encasement bases for L34 and L35 were poured.

Excavation for LGG in service road on south side of ACL was excavated.

VCP in 6", 8" 12", and 15" is on the job site, arrived last week.

Leaking isolated joint between LBB and LCC was repaired, will be water tested this week.

Plant changed out #4 pump again on Friday. The pump that was installed last week went to ground on all phases.



Tom Carrico
Operation Foreman

skg

WGK 4084767

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: March 7, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J. Becherle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici* B.W. Steketee 1740**
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740 *Present at meeting
K.W. Petterson 1740* **Part time
O.N. Shipley 1740*
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 03/07/85 at 9:00 a.m.

1. Construction Progress

- a. 110' of encasement for the 42" VCP was poured and stripped between manholes 1-BB and 1-CC.
- b. The one joint that leaked between manholes 1-BB and 1-CC has been ground out and will be packed with furan mortar today. The two joints between manholes 1-AA and 1-BB will be packed with mortar on 3/08. Based on curing times, these joints should be tested late next week.
- c. The joint repaired east of manhole 1-CC passed the hydro test. Concrete encasement will be poured and the trench backfilled at this point. This will allow the railroad track east of BBW to be reinstalled and back in operation by 03/18/85.
- d. Lateral manmhole 1-FF has been poured and stripped. The concrete base for 8" and 12" lateral lines L-34 and L-35 has been poured. Our current plan is to lay this pipe and make the furan joints when we get the first spell of warm weather (65°-70°F). A heater will be installed at one end of the pipe and the entire pipe will be covered by insulated blankets during the curing period.

WGK 4084768

- e. The smaller VCP as well as some 42" VCP is due at the site 03/07 and 03/08/85.
- f. The 42" VCP base has been completed on both sides of manhole 1-DD.
- g. Excavation has started for lateral manhole 1-GG.
- h. The second 42" VCP between manhole 1-AA and the existing sewer box will be installed next week.
- i. 42" VCP pipe east of 1-CC will be set and joints made starting next week.
- j. The east end of the ACL culvert under the tracks is being exposed preparatory to beginning work on manhole 1-EE. Two underground lines need to be located in this area.
- k. Carrico to advise construction of the portions of excavated dirt that are available for the backfilling which will begin next week.

2. BBZ Warehouse

The temporary modifications to BBZ will be done in the next 3-4 weeks preparatory to construction work beginning in this area.

3. Dewatering Pumps

- a. The hole for dewatering pump #5 has been lowered preparatory to installation of a pump at this location.
- b. #4 dewatering pump is being reinstalled today.
- c. The dewatering pumps have maintained the water level below the trench as we have required. With the river on the rise, these pumps must be watched closely for malfunctioning, etc.
- d. Carrico to check to see if there will be future pumping restrictions to the treatment plant.

4. Miscellaneous

- a. Carrico to continue to pursue help from the plant to repair the leaking cooling tower. It has been two-weeks since we discovered this problem.

NGK 4084769

J. Becherle, et al
Page 3
March 7, 1985

b. Nelson to talk to Jerry Gum to determine to impact of the track removal on the wash tracks south of BBC.

c. Alberici to arrange for compaction tests on the backfill.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, March 14, 1985.


Gordon A. Grundmann

mb/2178Z

MGK 4084770

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE : March 4, 1985
SUBJECT : Status Report on CEA 3808
REFERENCE :
TO : P. Hoemann

cc: ~~L. Bumbicka~~
K. Lichtenheld - CS6G
R. Nelson
K. Petterson
O. Shipley
B. Steketee

Sewer box LDD was stripped of forms.

The joint east of LCC that impacts on getting track 8C back in service was repaired a second time, retest this week.

Excavation for lateral 34 and 35 was done. Smaller pipe will arrive this week.

Plant changed out #4 dewatering pump Friday. The pump installed on February 21 went to ground shortly after it was installed.

Poured 85 cubic yards of concrete encasement from LBB to 14 foot east of LCC. This excluded the one leaking joint which was isolated.


Tom Carrico
Operation Foreman

skg

WGK 4084771

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: March 1, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J. Becherle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici* R.J. Murphy 1740
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740 *Present at meeting
K.W. Petterson 1740*
O.N. Shipley 1740
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 02/28/85 at 9:00 a.m.

1. Construction Progress

- a. The recent heavy rains caused the very fine fill on the sides of the trench to filter into the trench. In addition, the gravel road beds for the railroad tracks act as drains and channel much additional water into the trench. Cleanup is in progress.
- b. The dewatering pumps are keeping the water level at about 19' between pumps 1 and 3.
- c. Pump #4 failed and is being changed out. The silt level in the hole seems high. Mathes Company has been called for consultation.
- d. The wall forms for manhole 1-DD were stripped.
- e. The concrete encasement will be poured Friday, March 1, on the VCP between manholes 1-BB and 1-CC (except for joint being repaired).
- f. Repairs are in progress on other joints that leaked.
- g. Two fire main leaks had to be repaired.
- h. Some cleanup of the site is in progress to keep it looking better as well as safer.

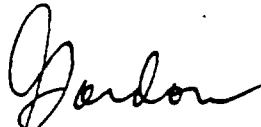
WGK 4084772

- i. Excavation will start for manhole 1-GG.
- j. The smaller VCP will not arrive at the site until Tuesday, March 5. Hydrostatic test problems caused this delay.
- k. Epoxy will be put on the manhole 1-CC joints prior to water testing.
- l. Alberici to add another 480 volt receptacle on each of their power carts. This will allow them to run 8 heaters at one time in the trench.

2. Miscellaneous

- a. The water running into the culvert pipe under the ACL tracks is from the cooling tower. Carrico working to get repairs made.
- b. The #5 dewatering well will be trimmed at the top to lower the elevation of the pump. This will avoid the possibility of the pump being hit by a passing railroad car.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, March 7, 1985.



Gordon A. Grundmann

mb/2178Z

WGK 4084773

MONSANTO

From: Gordon A. Grundmann - CS6G Corporate Engineering (4-6112)

Date: February 22, 1985

cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
R.M. Calles CS6G
M.A. Coco Alberici
R.J. Geile CS6G
E.R. Hartman CS6G
P.R. Hoemann 1740
L.C. Kreh F2ED
F.A. Mayse CS6G*
R.J. Murphy 1740
R.L. Wiese CS6G

Subj: Project Progress Meetings

Re: CEA 3808 - Main South Trunk Sewer

TO: J. Becherle Alberici
W. Bodine Alberici
T.N. Carrico 1740*
W.C. Koester Alberici*
K.W. Lichtenheld CS6G*
C.J. Lotz Alberici*
R.L. Nelson 1740*
K.W. Petterson 1740*
O.N. Shipley 1740*
T.W. Wright CS6G

*Present at meeting

K. Gielow Imrie Sales (Pennwalt) (Part-time)*

Following are minutes of the meeting held at the CED construction trailers on 02/22/85 at 9:00 a.m.

1. Construction Progress

- a. Additional 42" VCP concrete base poured. Now about half way into culvert pipe at ACL tracks.
- b. Manhole 1-DD walls poured. Will strip Monday.
- c. Excavated laterals L-34 and L-35. Smaller size VCP pipe scheduled to arrive at site on Tuesday.
- d. Hydro test performed on section of 42" VCP pipe covering 10 joints. One joint had a few weep type leaks. Encasement of the portions of pipe which passed hydro will start next week.
- e. Repairs are in progress on the 42" VCP joints which leaked on previous tests.
- f. Sixteen (16) manhole covers are now on site.
- g. Due to the leak in the VCP joint, the tracks to the west of BBW are now targeted to be back in service by 03/15. This remains a top priority.
- h. Placed 11 pieces of 42" VCP pipe in trench between manholes 1-CC and 1-DD.

WGK 4084774

- i. Encasement of the 42" pipe on each side of manhole 1-CC will allow further work to be performed on the manhole.
- j. The potential interference between the 42" VCP pipe and the lateral to manhole 1-GG only involved the encasements. This is not a problem.

2. VCP Pipe

Discussion was held on the VCP joints. Ken Gielow from Imrie Sales, representing Pennwalt, was present. Subjects covered were intermittent lack of bond between the furan material and the VCP pipe, and a review of the furan installation procedure.

The overall consensus of the group is that the procedure for making the joints is good. The only real variable has been the temperature at which the joints have been cured. Sometimes it has been on the low side.

As a result of this discussion, we will continue to make joints maintaining the higher temperatures. The next set of joints will be made, cured, and tested in the next 3-4 weeks. The joint procedures will be reviewed based on the results of the test.

Ken Gielow will discuss the bonding subject with Pennwalt and will also have some bonding strength tests performed on some of the samples taken from previous test joints.

3. BBZ Warehouse

Work on the revisions in the warehouse to allow operation during the sewer construction period will be done in the next month.

4. Miscellaneous

- a. The No. 4 pump was taken out and replaced with another pump. Currently, Nos. 1, 3 and 4 dewatering pumps are being used. The No. 4 pump will be repaired as required. Shipley and Nelson.
- b. Water is running into the culvert pipe under the ACL tracks. Since it is only running into the trench from the south side, it could be from the cooling tower and not just surface drainage. Shipley to check.

WKG 4084775

J. Becherle, et al
Page 3
February 22, 1985—

- c. Koester formally disagrees with the Care of Flow definition as stated in the letter from Monsanto dated 02/15/85. A separate meeting will be set up in the next several weeks to carefully discuss this issue so that a resolution can be reached.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, February 28, 1985.



Gordon A. Grundmann

mb/2178z

WGK 4084776

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE February 23, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO : P. Hoemann

cc: ~~L. Bumbick~~
K. Lichtenheld - CS6G
R. Murphy
R. Nelson
O. Shipley
K. Petterson

Repair of joint critical to getting Track 8C back in service was not successful. Another repair attempt will be made this week.

All repairs made between 1BB and 1CC were successful except one.

Encasement of good joints between 1BB and 1CC will be done this week.

Sewer box LDD was poured 2/22/85 after a long period of box preparation.

No. 4 dewatering pump was changed out by the plant on 2/21/85.

Repair of fire main that was getting water into the sewer excavation was completed on Friday, February 22, 1985.



Tom Carrico
Operation Foreman

skg

WGX 4084777

Monsanto

FROM
(NAME-LOCATION-PHONE) J. Scheibal-Colling

DATE February 19, 1985

SUBJECT P₂S₅ Operations During
Sewer Main Project

REFERENCE

TO R. Nelson

cc. J. Boehm
~~John B. Bickel~~
K. Kennedy
J. McQueeney

After a cursory glance at the routing for the new south trunk sewer, I feel there will be major production problems in P₂S₅ during the construction period. Several problems need to be addressed thoroughly. The following are those items I recognize at the present time with my limited information.

West side of department:

1. Limitation of empty and rework bin storage
2. Extreme production delays/storage for VHR inventory.

North side of department:

1. Phosphorus inventory limited to 3½ days production or alternate means required for P₄ tanks to enter department
2. Reduced reactive storage
3. No loading capabilities at dock for cast or reactive grades
4. Fire lane to cast building restricted.

East side of department:

1. Limited reactive inventory
2. No access for cast can trailers or sulfur trailers
3. Fire lane for solidification/reactor buildings restricted.

Our turnarounds for 1985 are scheduled for April 8 and October 7. This would be the ideal time to provide an alternative for our rail problems. The remaining access problems and storage problems could best be handled by limiting construction to one area at a time.

By way of this memo, I am requesting that you provide me with a timetable for construction and a proposed action plan for addressing the above mentioned production constraints.


J. Scheibal-Colling

skg

WGK 4084778

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: February 18, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J. Becherle Alberici P.R. Hoemann 1740
W. Bodine Alberici L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici R.J. Murphy 1740
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740* *Present at meeting
K.W. Petterson 1740*
O.N. Shipley 1740*
T.W. Wright CS6G*

NOTE: Next meeting on Friday, February 22, 1985

Following are minutes of the meeting held at the CED construction trailers on 02/14/85 at 9:00 a.m.

1. Construction Progress

- a. Forming of the walls of manhole 1-DD continues.
- b. Four manhole covers with the furan lining have been received.
- c. The last two sections of pipe between manholes 1-BB and 1-CC were installed and the joints made.
- d. The joint near the railroad track to BBW has been repaired. Based on curing time, testing will be done 02/18/85. The other two joints needing repair are 80% ground out.
- e. Eighteen complete 42" pipe joints have been made.
- f. The current target for returning the railroad track west of BBW back into service is 03/01/85.
- g. The joints made without the snake worked very well. There was some minor growth on a few of the joints.
- h. Miscellaneous 6", 12", and 15" VCP is scheduled to arrive next week. This will allow work to proceed on some of the sewer laterals.

NGK 4084779

- i. A potential interference between the lateral to manhole 1-GG and the 42" VCP into manhole 1-DD will be checked by Lichtenheld.

2. BBZ Access

In a previous meeting it was suggested that a mat be furnished across the trench for maintenance trailers. This will not be done. The maintenance trailers can be loaded at another location. Carrico to confirm with BBZ personnel.

3. VCP Joints

Sufficient electric current is now installed for the heaters, and the temperature in the trench is being maintained most of the time at approximately 80°F to 90°F. The temperature of the pipe is also in this range, and this provides a very satisfactory temperature for proper curing of the furan joints.

4. Miscellaneous

- a. The #4 pump tripped out. Shipley to have the pump control system checked.
- b. It is currently desirable to run pumps in the #1, 3 and 5 dewatering wells. To accomplish this, the #5 pump needs to be installed. Shipley and Carrico.
- c. The updated schedule was reviewed. The critical path is the 42" VCP pipe. Progress of the job will be monitored against this schedule.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Friday, February 22, 1985.



Gordon A. Grundmann

mb/2178Z

WCK 4084780

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE February 19, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO : P. Hoemann

cc. ~~L. Bumbicka~~
K. Lichtenheld - CS6G
R. Murphy
R. Nelson
O. Shipley
L. Dewald

Repair area on joint east of 1CC was cured through the weekend 2/16 and 2/17.

Repairs were completed on joints between Box 1BB and 1CC. Test this week.

Water source was finally located on fire main north of hydrant. This was the water getting into the excavation on the west end, will be repaired this week.

Worked on relocated sewer out of BBW.

Concrete base for sewer poured up to and through culvert for 25 feet.

Work continuing on forming Box 1DD.

Tom Carrico

Tom Carrico
Operation Foreman

PTJ

skg

WGK 4084781

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: February 8, 1985 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J. Becherle Alberici P.R. Hoemann 1740
W. Bodine Alberici* L.C. Kreh F2ED
T.N. Carrico 1740* F.A. Mayse CS6G
W.C. Koester Alberici R.J. Murphy 1740
K.W. Lichtenheld CS6G* R.L. Wiese CS6G
C.J. Lotz Alberici*
R.L. Nelson 1740* *Present at meeting
K.W. Petterson 1740*
O.N. Shipley 1740*
T.W. Wright CS6G*
J. Imrie Imrie Sales (Pennwalt) (Part Time)*

Following are minutes of the meeting held at the CED
construction trailers on 02/07/85 at 9:00 a.m.

1. Construction Progress

- a. About 450' of trench has been excavated to the culvert pipe put under the tracks east of ACL. No additional trench will be opened until portions of the downstream trench have been filled.
- b. The concrete base for the 42" pipe has been formed and poured to about 400'.
- c. The base for manhole 1-DD has been poured. Forming of the walls is in progress.
- d. The manhole tops with furan lining are being fabricated.
- e. The benzene problem is temporarily solved. A barge was unloaded last Monday and another is scheduled for this weekend (02/09/85). No more trucks are presently scheduled.
- f. Work to get the railroad track west of BBW back in service remains a top priority.

2. VCP Joints

WGK 4084782

- a. Repair of the joints which leaked is in progress. They are being drilled and ground out. Some portions of the joint did not appear to be fully cured. It was felt that maintaining a higher temperature is probably the key

W. Bodine, et al
Page 2
February 8, 1985

since the curing of furan has a time temperature relationship. The minimum temperature is being raised to 60°F and it is preferred that the temperature be 70°F (curing at 70°F takes 7-days).

- b. Higher amperage is being installed (by 02/08/85) to insure sufficient current for the heaters.
- c. Petterson and Alberici to maintain a log to insure proper and total curing of each joint.
- d. Discussion was held over the value of the snakes used on the joints. They prevent to some extent heat getting to the joints, and may not accomplish much compression. As a result the next few joints will be made without the use of the snakes.

3. BBZ Access

Materials have been ordered.

4. Dewatering Pump Malfunction Light

The light system on #3 pump was repaired.

5. Schedule

Copies of the current schedule were handed out for review and comment. The laterals will be shown on a separate sheet.

The schedule will be discussed next week.

6. Miscellaneous

- a. Copies of the various technical articles from Lee Sheppard were distributed covering acid brickwork, etc.
- b. Planning for bypass 1-D is in progress by Lichtenheld and Shipley.
- c. It was noted that manhole 1-GG needs to be installed while the temporary loading facilities are in place for ACL.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, February 14, 1985.


Gordon A. Grundmann

WGK 4084783

mb/21782

Monsanto

FROM
NAME-LOCATION-PHONE: T. Carrico, Ext. 2095

DATE February 11, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO : P. Hoemann


~~L. Bumbicka~~
K. Lichtenheld - CS6G
R. Murphy
R. Nelson
O. Shipley
L. Dewald

Benzene trucking ceased around noon on February 1, 1985. Heaters were turned back on around 4:00 p.m. in the excavation.

Repair area on joint east of ICC was ground out and cleaned. Repair was started on February 7, 1985. First and second pass was made. Heat applied to accelerate cure.

Excavation to west side of culvert and work to form box LDD is underway.

Went to two dewatering pumps on February 7, 1985.


Tom Carrico
Operation Foreman

skg

WGK 4084784

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE : February 4, 1985
SUBJECT : Status Report on CEA 3808
REFERENCE :
TO : P. Hoemann

cc. ~~Mr. Dumbick~~
K. Lichtenheld - CS6G
R. Murphy
R. Nelson
O. Shipley
L. Dewald

Portable heaters had to be shut down on Monday, January 28, 1985, due to benzene being received by trailers. Cure of joints between ICC and middle of I was completed.

Test of section under track 8C was not successful on January 29, 1985. One joint leaked from 11:00 to 12:00.

Test of second section between IAA and LBB also proved unsuccessful.

A fix was not agreed to as suggested by Alberici. A start on this repair will begin this week.

Heat was restored to excavation at 4:00 p.m. on February 1, 1985.

Excavation has continued east towards the culvert placed behind ACL.

Tom Carrico

Tom Carrico
Operation Foreman

skg

NGK 4084785

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: January 31, 1985 cc: D.R. Bowers CS6G
L.V. Bumicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: J. Becherle Alberici* P.R. Hoemann 1740
T.N. Carrico 1740* L.C. Kreh F2ED
W.C. Koester Alberici* F.A. Mayse CS6G
K.W. Lichtenheld CS6G* R.J. Murphy 1740
C.J. Lotz Alberici* R.L. Wiese CS6G
R.L. Nelson 1740*
K.W. Petterson 1740* *Present at meeting
O.N. Shipley 1740*
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 01/31/85 at 9:00 a.m.

1. Construction Progress

- a. Minimal progress has been made since 01/16/85 when the project was stopped for safety reasons while benzene was being delivered by trucks to the storage tank near the sewer work. This situation will be in effect through 02/01/85. Barge service could be back in operation by 02/02/85.
- b. Additional trench was excavated to about 400'. The concrete base for the 42" pipe has been formed and poured to about 375'.
- c. Water testing of the 42" pipe began. Results are discussed later.
- d. Preparations for work on manhole 1-DD are in progress.

2. Storage West of ACL

The temporary unloading facilities are operational.

3. BBZ Access

WGK 4084786

Work on the items required to keep BBZ operational during the construction period will begin in the near future.

It was suggested that a mat across the trench be furnished for maintenance trailers. The project is requesting an alternative to this item since it is felt that mats across the trench are not desirable. Nelson and Carrico to review with BBZ personnel.

4. Dewatering Pump Malfunction Lights

The dewatering pump control system was designed so that a light would come on to show that the pump had failed when it should have been running. This method of operation will continue.

The control system on dewatering pump #3 is not working correctly. Shipley to get it repaired.

5. VCP Joints

- a. A letter was received from Alberici pertaining to the VCP joint costs and previous correspondence from Monsanto. A meeting to discuss these costs was requested at an apropos time in the future.
- b. Hydro tests were made on two (2) sections of the sewer. On the first section, one of the three joints tested had several small weep type leaks at the top. On the second section tested, two of the four joints leaked. One joint had a few small weep leaks and the other joint tended to leak all around indicating this was not a good joint.

Several methods for repairing the leaks were proposed. After much discussion, it was decided that the joint material must be ground out in the failure area and replaced.

6. BBW Access

Due to the hydro leaks in the 42" pipe joints discussed above, the railroad track for BBW, originally scheduled to be back in operation on 02/01/85, will be delayed by approximately a month to 03/01/85. The project maintains a continued priority effort to get this track back in operation as soon as possible.

7. Care of Flow

Discussions were held over the definition of "care of flow" and what the responsibilities are for both Alberici and Monsanto. There is disagreement and this subject will be discussed further at future meetings.


WCK 4084787

J. Becherle, et al
Page 3
January 31, 1985

8. Miscellaneous

- a. Building 245 will have a turnaround in April. They have a railroad track that carries phosphorous cars that need continued access. Although the project is a long way from this area, we should take a look to see if any pre-planning is required. Reference drawing C9. Shipley
- b. Koester has updated the Alberici schedule to cover the first 600' of sewer work. Copies will be distributed to project personnel for review. The schedule will be discussed at the next two meetings.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, February 7, 1985.


Gordon A. Grundmann

mb/2178Z

WGK 4084788

Monsanto

FROM
NAME-LOCATION-PHONE T. Carrico, Ext. 2095

DATE January 28, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO P. Hoemann

~~PERSONNEL~~
K. Lichtenheld - CS6G
R. Murphy
R. Nelson
O. Shipley
L. Dewald

Heaters were turned back on around 3:45 p.m. on January 21, 1985.

Heat was concentrated in the test area from ICC to the middle of I Street.

No cure time has been lost since heaters were turned on. Satisfactory cure obtained at 9:00 a.m. January 28, 1985. Plans are to proceed with the joint test.

Informational meeting on brick work procedures and cure of green panel joint held at CED complex on January 22, 1985. Pennwalt representatives and consultant along with a representative from Fleischer Seeger provided the knowledge.

With the ACL raw material unloading facilities in operation, excavation has been restarted to box 1DD near the southwest corner of the chlorine treatment area.

Tom Carrico
Tom Carrico
Operation Foreman

skg

WCK 4084789

Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico - WGK

DATE : January 28, 1985
SUBJECT : Status Report on CEA 3808
REFERENCE :
TO : P. Hoemann

cc. L. Bumbicka*
K. Lichtenheld
R. Murphy
R. Nelson
O. Shipley
L. Dewald

Receipt of benzene at Big Mo by trailer has shut the sewer work down as of 2:30 P.M. on 1/16/85.

Sewer tile is in from plant 1-B to 1-BB but not tested or cured completely.

Tile work was being done between 1-BB and 1-CC at time of shutdown.

Tile is in between 1-CC and middle of I Street. Plans are for water testing after a return to curing for several days. This will be done to get Track 8-C back into service.

First 200 feet of excavation is now covered with a canopy.

Raw material trailer unloading for AC1 has been changed so it can be received from I Street north of 5th. Mats were ruled out as too costly and unsafe.

Tom Carrico

Tom Carrico
Operation Foreman
Ext. 2095

/bb

WGK 4084790

IN-1120

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: January 23, 1985

cc: D.R. Bowers CS6G

L.V. Bumbicka 1740

Subj: Pre-Job Conference

R.M. Calles CS6G

M.A. Coco Alberici

Re: CEA 3808 - Main S. Trunk Sewer

E.R. Hartman CS6G

L.C. Kreh F2ED

TO: W. Bodine Alberici

F.A. Mayse CS6G

T. Carrico 1740

R.J. Murphy 1740

W. Franke Pennwalt

R.L. Wiese CS6G

J. Imrie Imrie Sales

R. Knoll Fleischer Seeger

W. Koester Alberici

K. Lichtenheld CS6G

C. Lotz Alberici

R. Nelson 1740

K. Petterson 1740

L. Sheppard Pennwalt

O. Shipley 1740

A pre-job conference was held at the construction trailers at 9:00 a.m. on 01/22/85 to discuss membranes and acid brick details for the manholes on the project. Most of the details discussed in the meeting are part of the project specifications and are not covered in this memo. The details summarized below primarily cover additional clarification or emphasis on portions of the specifications:

A. Cast In-Place Concrete Manholes

1. Sheppard noted that it is often worthwhile to check the actual chute operator at the concrete supplier to ensure they are furnishing the proper mix.
2. Any voids that can be seen visually in the concrete surface need to be repaired prior to membrane installation. The patch mix per the specifications is 2-parts sand to 1-part Portland cement. (The mix stated in the meeting was not per the specifications).
3. All of the moisture must be out of the concrete walls before applying the membrane. This is also true after hydro test.

B. Asphalt Membrane System

1. Apply when the temperature is over 40°F.
2. The hot asphalt is approximately 360°F during application. This presents a burn hazard which means that safety measures must be taken here.

WCK 4084791

3. A primer is first applied over the entire surface. It is important that the surface be thoroughly covered.
4. The layers of asphalt are applied from the bottom up. The squeegee used is usually wood or masonite.
5. The fiberglass cloth is applied starting at the top.
6. The asphalt thickness is 1/4". The reason for not getting too great a thickness of asphalt is that the material has the capability to flow and could break the bond of the bricks at some future time.

C. Furan Resin Membrane System

1. The furan and substrate must be 60°F minimum regardless of the air temperature.
2. A maximum of 80°F for installation is suggested because the working life of the furan above this temperature gets very short.
3. The white glass sheathing cloth must be worked into the mortar until it is entirely black (the color of the mortar).
4. Curing times are specified, but work should not proceed if a knife point can be pushed into the furan. If it can, then the furan has not completed its curing.

D. Acid Brick

1. The surface temperature of the brick must be 60°F minimum. This means pallets of brick must be restacked after receiving in a checker-board fashion to ensure that the inner bricks are at the proper temperature. Ventilation is required under the brick so it does not absorb moisture from the ground. The guideline temperature for laying brick is 60°-80°F. The mortar temperature has the same guidelines. If the temperature is above 80°F up to a maximum of 90°F, the bricklayer must lay the brick very quickly and this increases the risk of the mortar hardening before the bricks can be properly laid.
2. Monsanto will furnish the power for heating and refrigerating units to either heat or cool the brick as required.

WGK 4084792

3. When mixing the furan, mix the power into the liquid to avoid lumping (as opposed to the reverse). Spread mortar out to prevent deep mixes or there is the ultimate possibility of the mix catching on fire.
4. When a brick is placed, mortar must be extruded all around. This ensures full joints.
5. Bricks are not all that uniform, and the bricklayer must choose his bricks to obtain the nominal 1/8" thick joint.
6. After the brick is installed, 8-days of curing at 70°F are required.
7. Double-buttering is required on the brickwork.
8. The joint design recommended by R. Knoll has been accepted. Knoll to resubmit drawings for approval.

E. General

1. All materials to be used for the membranes and brickwork have been approved.
2. It was clearly stated that all this work must be executed strictly in accordance with the specifications. Any revisions must be cleared and approved by Monsanto.
3. R. Knoll intends to use the same personnel for the entire project. This would include: Rich Schlereth of Fleischer Seeger who will periodically check the progress of the job, a brick foreman (on the job all the time), one or two bricklayers, and a laborer.
4. The next seminar, which will be held specifically for the craftsmen who will do the work, is expected to take place in early March.
5. Sheppard is sending Grundmann inspection guidelines which will be distributed.

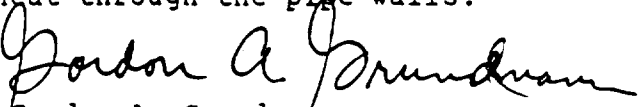
F. Furan Joints on 42" Pipe

1. Cannot hydro test prior to total curing. If water penetrates the furan, it will stop the cure.
2. Shutdown of work in the trench due to benzene safety concerns caused concern over the curing of two joints. Curing will start if the pipe itself (not just the air) is at 55°-60°F. It is okay to restart a cure if it has to be stopped.

NGK 4084793

If a cure never did start because of too low a temperature, and more than four-days elapses, then the joint must be redone since the furan will not ultimately reach proper strength after a delay of this length of time. The two joints questioned were at sufficient temperature when the work was shut down due to benzene safety concerns, and they are okay since the cure had started. Loss of bonding is the concern with starting the cure too late. If you could scrape the furan off the pipe with a knife, then the bonding was improper.

3. Alberici is considering placing a bag enclosure around the outside of the pipe to localize the heating. Guidelines were established. Ideally the temperature inside the pipe and outside should be the same. A 10°F differential is acceptable. More than 10°F differential up to 20°F absolute maximum is marginally acceptable, but not recommended. Sheppard suggested the possible use of tarps over the pipe alongside the joints to help minimize the loss of heat through the pipe walls.


Gordon A. Grundmann

mb/0048C

WCK 4084794

MONSANTO

From: Gordon A. Grundmann CS6G Corporate Engineering (4-6112)

Date: January 18, 1984 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: T.N. Carrico 1740* P.R. Hoemann 1740
W.C. Koester Alberici L.C. Kreh F2ED
K.W. Lichtenheld CS6G* F.A. Mayse CS6G
C.J. Lotz Alberici* R.J. Murphy 1740
R.L. Nelson 1740* R.L. Wiese CS6G
K.W. Petterson 1740*
O.N. Shipley 1740 *Present at meeting
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 01/18/85 at 9:00 a.m.

1. Construction Progress

- a. The plant supplier of benzene had a pipeline freezeup which prevented the unloading of benzene by barge. Temporarily, the benzene is being shipped into the plant by truck and unloaded at the storage tank near the construction site. For safety reasons the use of any spark producing devices in the area has been prohibited. This has prevented the use of heaters in the trench and resultantly has stopped all joint work since about 2:00 p.m. on Wednesday, January 16. It is anticipated that normal construction work can proceed Monday or Tuesday, January 21 or 22.
- b. Twenty-one (21) pieces of 42" pipe are in the trench. Seventeen (17) joints are either complete or partially complete.
- c. Manhole 1-FF walls have been poured and stripped.
- d. Excavation is now approximately 100' beyond manhole 1-CC.

2. Storage West of ACL

Temporary unloading facilities to "I" Street are targeted for completion by the end of the day on Friday, 01/18/85.

WGK 4084795

T.N. Carrico, et al
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3. Dirt Removal

Testing of a dirt pile which includes concrete and asphalt pieces indicates some low level contamination. Disposal of this dirt may have to be handled as contaminated dirt.

The costs for handling and disposal of dirt are being reviewed.

4. Miscellaneous

- a. Jim Becherle is assisting Chris Lotz.
- b. Update of the schedule is still in progress.
- c. Methods for maintaining sufficient heat in the trench for joint curing were discussed.



Gordon A. Grundmann

mb/2178Z

W6K 4084796

Monsanto

FROM
NAME-LOCATION-PHONE T. Carrico, Ext. 2095

DATE January 16, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO P. Hoemann

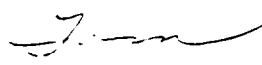
~~L. Bumbicka~~
K. Lichtenheld - CS6G
R. Murphy
R. Nelson
O. Shipley
L. Dewald

Box 1FF was formed and poured. Temporary PVC bypass was installed so 12" sewer will remain functional until box is put into service.

All joints complete from east side of 1CC to middle of I Street. Section will be tested this week.

One joint was made on east side of 1BB Friday. The job was stopped due to lack of heat in excavation.

Additional canopies and heaters were set up for the week end. Temperature of excavation and pipe seems to be between 50 and 60 degrees now.


Tom Carrico
Operation Foreman

skg

WGK 4084797

MONSANTO

From: Gordon A. Grundmann- CS6G Corporate Engineering (4-6112)

Date: January 14,, 1984 cc: D.R. Bowers CS6G
L.V. Bumbicka 1740
Subj: Project Progress Meetings R.M. Calles CS6G
M.A. Coco Alberici
Re: CEA 3808 - Main South Trunk Sewer R.J. Geile CS6G
E.R. Hartman CS6G
TO: T.N. Carrico 1740* P.R. Hoemann 1740
L.N. DeWald 1740* L.C. Kreh F2ED
W.C. Koester Alberici* F.A. Mayse CS6G
K.W. Lichtenheld CS6G* R.J. Murphy 1740
C.J. Lotz Alberici* R.L. Wiese CS6G
R.L. Nelson 1740*
K.W. Petterson 1740* *Present at meeting
O.N. Shipley 1740
T.W. Wright CS6G

Following are minutes of the meeting held at the CED construction trailers on 01/11/85 at 9:00 a.m.

1. Construction Progress

- a. Digging and shoring of the trench has resumed at the railroad tracks west of ACL.
- b. Sixteen (16) pieces of 42" pipe are in the trench and eight (8) complete joints have been made.
- c. Alberici plans to put plastic or plywood behind the shoring to minimize the mud which can flow between the timbers in very wet weather.
- d. The base for MH 1-FF was poured (a lateral MH). Work on this 12" lateral line will begin when vendor pipe arrives the week of 01/14/85.
- e. Early the week of 01/14/85 a hydro test will be performed on the 42" pipe between MH 1-CC and the farthest pipe to the east that has been set. A source of water has been found for testing other than using the fire hydrants.

2. Acid Brick Joint Detail

Discussion of the corner joint acid brick detail occurred last meeting. A final decision will be made on this joint at the 01/22/85 special meeting.

3. Pre-Job Conference

The out-of-town participants have been contacted and will be at the 01/22/85 pre-job conference for acid brick, etc.

WGK 4084798

4. Storage West of ACL

The options for maintaining flow to the ACL building were reviewed at a special meeting. It was determined that materials would be brought in from the west off "I" Street. Pipes will be run under the railroad tracks so that unloading can be done from trucks parked on "I" Street. A temporary safety shower will be set up at the street. Work on the pipe runs will start 01/16/85.

It was agreed that the above option was much better than placing a 30' mat across the road and having trailer trucks backing across the trench.

5. VCP Joints

As the craft personnel gain experience in making joints, the time to make each joint is decreasing. It is anticipated that their efficiency will continue to improve.

Alberici plans to add two additional heaters in the trench for the purpose of maintaining the proper temperature during joint curing.

6. Miscellaneous

- a. The parameters for water testing the manholes were reviewed.
- b. Some of the dirt mixed with asphalt and concrete pieces will be hauled to a landfill in the near future. This material cannot be used as backfill. Approval is required by the plant before any hauling is done.
- c. Alberici to begin preparations to do the work to allow access to BBZ during construction.
- d. Plans need to be made to allow a bypass at manhole 1-D. Shipley and Lichtenheld.
- e. The malfunction light on dewatering pump #3 is not working and needs to be corrected. The plant would prefer the lights to be on when the pump is running, not malfunctioning. Lichtenheld to review with C. Crain.
- f. Alberici plans to have another engineer at the site in the near future to assist Lotz.

WGK 4084799

T.N. Carrico, et al

Page 3

January 14, 1985

- g. Alberici to update schedule to cover the first 600' of sewer work. We will monitor against this schedule in the future. At this time, we are well along on the learning curve.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Friday, January 18, 1985.



Gordon A. Grundmann

mb/2178Z

WGK 4084800

MONSANTO

From: Gordon A. Grundmann- CS6G Corporate Engineering (4-6112)

Date: January 4, 1985

cc: D.R. Bowers CS6G

L.V. Bumbicka 1740

Subj: Project Progress Meetings

R.M. Calles CS6G

M.A. Coco Alberici

Re: CEA 3808 - Main South Trunk Sewer

R.J. Geile CS6G

E.R. Hartman CS6G

TO: T.N. Carrico 1740*

P.R. Hoemann 1740

L.N. DeWald 1740*

L.C. Kreh F2ED

W.C. Koester Alberici*

F.A. Mayse CS6G

K.W. Lichtenheld CS6G*

R.J. Murphy 1740

C.J. Lotz Alberici*

R.L. Wiese CS6G

R.L. Nelson 1740*

K.W. Petterson 1740*

O.N. Shipley 1740

T.W. Wright CS6G

*Present at meeting

Other attendees: R.B. Knoll from Fleischer Seeger, and J.A. Imrie from J. Imrie Sales Company (Pennwalt).

Following are minutes of the meeting held at the CED construction trailers on 01/03/85 at 9:00 a.m.

1. Construction Progress

WGK 4084801

- a. The forms on manhole 1-CC have been stripped
- b. Five pieces of 42" pipe are in place. One joint is complete and three others are partially complete.
- c. The concrete base pad for the 42" pipe is now poured 40' east of manhole 1-CC.
- d. Additional trench cover frames covered with plastic are being fabricated. This will allow 200' of trench to be covered at one time. The covers allow the temperature in the trenches to be maintained while the furan joints are curing.
- e. The fab shop for storing pipe has been modified and heated for pipe storage.
- f. The heavy rains on New Year's eve day caused a good deal of mud to get in the trench. Cleanup is in progress.
- g. Nelson advised that the dish in the floor of manhole 1-CC was not sufficient. Alberici will correct and insure that the correct dish will be obtained on the future manways. Nelson also restated the necessity for not rotating any two segments of pipe after they have been buttered with mortar and pushed together.

2. Acid Brick Joint Detail

Dick Knoll from Fleischer Seeger attended the meeting to discuss his concerns about one of the acid brick joint details. The pros and cons were carefully discussed. A final decision will be reached after discussions can be held with Ken Lichtenheld.

3. Pre-Job Conference

The specifications require that a pre-job conference be held to review and discuss the membrane and acid brick details to insure complete agreement and understanding prior to the work beginning. This meeting is scheduled to be held on January 22, at 9:00 a.m. at the CED construction trailers. Possible participants are:

Dick Knoll	Fleischer Seeger
Rich Schlereth	Fleischer Seeger
Jim Imrie	Pennwalt Representative
Lee Shephard	Pennwalt Consultant
C. Lotz or W. Koester	Alberici
Warren Bodine	Alberici
Ken Lichtenheld	Monsanto
O. Shipley or Len Dewald or K. Petterson	Monsanto
Dick Nelson	Monsanto
Tom Carrico	Monsanto
Gordon Grundmann	Monsanto

4. Storage West of ACL

Several options were considered on how to maintain the flow of materials to the ACL facility which normally come in on the railroad tracks to the west beside "I" Street.

- a. Truck access from the west off "I" Street creates a number of problems including safety concerns. One of the major concerns is whether there is enough room to operate truck trailers from "I" Street to "5th" Street across the railroad tracks.
- b. Another option, and the plant preference, is to obtain access to the ACL facility from the south by allowing trucks to cross the trench on a mat, which would need to be approximately 30' wide. Design details are to be handled by Ken Lichtenheld. This will also allow cost figures to be determined.

WGK 4084802

5. VCP Joints

For a number of weeks, these meeting minutes have reflected the progress made in finding a joint material to replace the asbestos roving material, a product which has been removed from the marketplace. Selection was finally made of Pennwalt's green panel mortar, a furan based material with ceramic fibers. Everyone feels that this revised material will give a better joint than the original PDR joint (furan - asbestos roving - hot poured sulfur).

Until this meeting it was felt that the cost of this revised joint would be approximately the same as the original joint. In the meeting, however, Bill Koester pointed out that the labor cost to install this joint is higher than the original joints based on the first joints made in the trench. The material costs for the two-joint systems are approximately the same.

Some modifications were made to the installation procedure based on the initial work done to date:

- a. The pipes in the trench will be aligned the same as on the pre-alignment jig. After the mortar is placed on the faces, the pipes will be pressed together until the mortar squeezes out all around on both the inside and outside. If this does not occur, the pipes must be separated and the joint redone. The mortar thickness of the face joint should be targeted for 3/8" or less.
- b. A 3-pass joint is acceptable during this cold weather. The 2nd pass can be installed as soon as the initial face joint is installed and struck. The final pass can be installed approximately a day later depending on the exothermic reaction time.
- c. The lowest mix of mortar is 1-part resin to 1-1/2-parts powder. It is acceptable to increase the powder mix up to 2-parts if this assists in getting a better exothermic reaction.

This joint will be reviewed to determine its overall effect on Alberici's and Monsanto's costs.

6. Dirt Removal

WGK 4084803

It was originally planned that noncontaminated excavated soil, which could not be used for backfill in the trench, would be hauled to a landfill in Granite City. This landfill is no longer available for our use. As a result,

T.N. Carrico, et al
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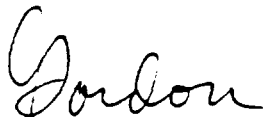
this soil must be hauled to a more distant site in Belleville. The cost effect on the project is now being evaluated.

In addition, it was originally planned that a visual and/or quick test at the trench could be used to determine if the soil was contaminated. In actuality, the soil testing requires 2-3 days. As a result, all soil must be stockpiled prior to hauling away. This means that additional costs will be incurred for the reloading of the noncontaminated dirt for hauling to either a landfill or back to the trench. (As originally planned, contaminated dirt will be handled by special disposal methods.) The effect on project costs is being evaluated.

Construction progress, schedule wise, has been slow. This was expected since we have been involved in a learning curve. In addition, development of the revised joint has taken time. Once the basic learning and setup is complete, the job will become more routinized and the overall schedule can better be determined.

Shipley will be back to work on Monday, January 7, on a part-time basis. Glad to have Ship back.

The next progress meeting will be held at the CED construction trailers at 9:00 a.m. on Thursday, 01/10/85.



Gordon A. Grundmann

mb/2267z

WGK 4084804

Wicnsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE January 8, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO : P. Hoemann

cc--~~Lee~~ Bumbicka
K. Lichtenheld - CS6G
R. Murphy
R. Nelson
O. Shipley
L. Dewald

Due to heavy rain in the area on New Year's Eve, progress on joints stopped last week.

Wednesday, Thursday, and Friday was spent removing surface water and mud from the excavation and cleaning up partial joints.

By late Friday, sewer tile for pass under Track 8C was in trench and aligned between Box 1CC and the middle of I Street.

All available canopies were in place over the excavation and heaters on for weekend.

Another truck load of 42 inch sewer tile has arrived on the job site.

Tom Carrico
Tom Carrico
Operation Foreman
sg

skg

WCK 4084805

IN-1120

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Monsanto

FROM
(NAME-LOCATION-PHONE) T. Carrico, Ext. 2095

DATE January 2, 1985
SUBJECT Status Report on CEA 3808
REFERENCE
TO : P. Hoemann

~~L. Bumbicka~~
K. Lichtenheld - CS6G
R. Murphy
R. Nelson
O. Shipley
L. Dewald

First pipe joint was made at 1B bell on December 24, 1984. Final green panel pass was made on this joint December 28, 1984.

Four pieces of pipe are in position and in various stages of completion on passes between 1AA and 1BB.

Encasement bed to carry pipe under track 8C was poured December 28, 1984.

Additional canopies made up to cover tile work from 1CC to middle of I Street.

Wooden 12 x 12 mats will be used to bridge the excavation on the south side of ACL so the department can get raw material trailers in and out.

Tom Carrico

Tom Carrico
Operation Foreman

skg

WCK 4084806